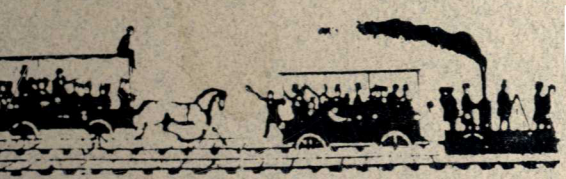
Fall 1991

Montauk Transportation Center: The Train Station as Evidence of the Duality That Exists Between Type and Prototype

Lisa Renee Eader



OFFICE COPY

MONTAUK

TRANSPORTATION

CENTER

THE TRAIN STATION
AS EVIDENCE OF THE DUALITY THAT EXISTS BETWEEN TYPE AND PROTOTYPE

LISA RENEE EADER
THESIS PREP
SYRACUSE UNIVERSITY
DECEMBER 10, 1991

FOR MY PARENTS AND FAMILY
AND MY VERY GOOD FRIEND
LAURA KEENAN

THANK YOU TO THE
PROFESSORS AND FACULTY
OF
SYRACUSE UNIVERSITY
SCHOOL OF ARCHITECTURE

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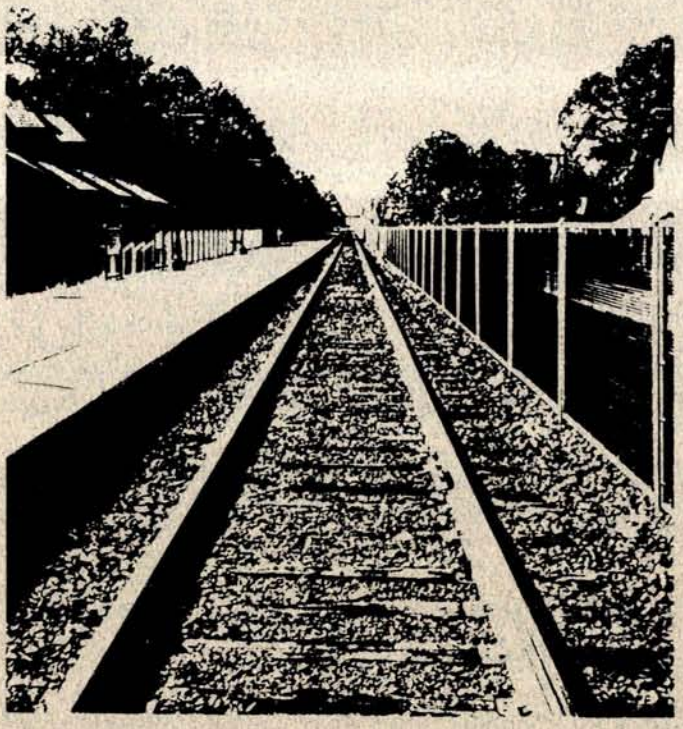
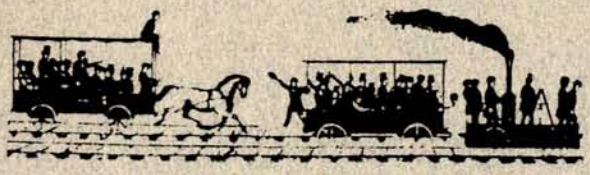




INTRODUCTION

I N T R O D U C T I O N

"During the early years of railroading, the requirements of depot designs were developed, that prevail in modern times: a small office for the ticket agent/station master, one or two waiting rooms, external shelter for passengers; luggage, baggage, and freight rooms."[1] The development of these new requirements called for a new building type; the railroad station.

Railroad stations became necessary as rail lines were extended from major metropolises. At first they were indistinguishable from other buildings, but as rail transportation grew, the depot became a unique type of American architecture, creating a new typology. These buildings, repetitive in type, linked communities together, while also producing a different image to reflect each unique city.

Distant towns depended on trains to bring newcomers, provisions, and merchandise, on which depended the settlements, growth, sustenance, and the amenities of existence. "The railroad station played in unifying, in giving a core to American communities maintaining individuality and local character prior to the decline of the railroads... the railroad terminal was the cities hallmark."[2] Whether the point of arrival or departure, the railroad station is the image of the community, presenting at a glance something about its size, affluence,

1. Bach, Ira and Wolfson, Susan A Guide to Chicago's Train Stations, Present and Past. (Ohio University Press, Ohio, 1986)
2. Grow, Lawrence Waiting for the 5:05, Terminal, Station, and Depot, in America. Universe Books, New York, 1977).

livelihood, and social range of the citizens. "In the 19th century, the railway station became a new gateway to the city, an imposing shape which stamped its mark upon the landscape, the hub around which great building operations revolved, the bud of new city growth."[3]

Railroad transportation began as a luxury, as a way of giving people freedom to move away from the workplace and the congestion of the city. As the pace of the American lifestyle has accelerated over the years, with the automobile age and the increased convenience of air travel, Americans have become used to living in high luxury. The train has lost its appeal because people would rather travel the fastest, quickest way. The automobile has given society the ability to overstep its bounds, resulting in overcrowding, and the lack of physical open space. "With the energy crisis and the rise of ecological consciousness, the railway is returning to the heart of current debates on the politics of transport."[4]

With gasoline prices skyrocketing and the economy plummeting, Americans are going to have to slow down and go back to appreciating the simpler things in life. The train once again plays an integral role in society. This new role stems from necessity rather than luxury. Therefore, a need now exists to further develop the existing typology and create a prototype to meet the modern demands. The return of mass transportation means an increase in building and re-designing the train stations, also a re-investigation into the concepts of themes behind the transportation gateways. With this, it is necessary to improve the stations and re-interpret the former issues which would advance the design and function into the 21st century.

3. Pompidou, Georges <u>All Stations, A Journey Through 150 Years of History</u>. (Thames and Hudson, London, 1978).
4. Ibid.

D E F I N I T I O N S

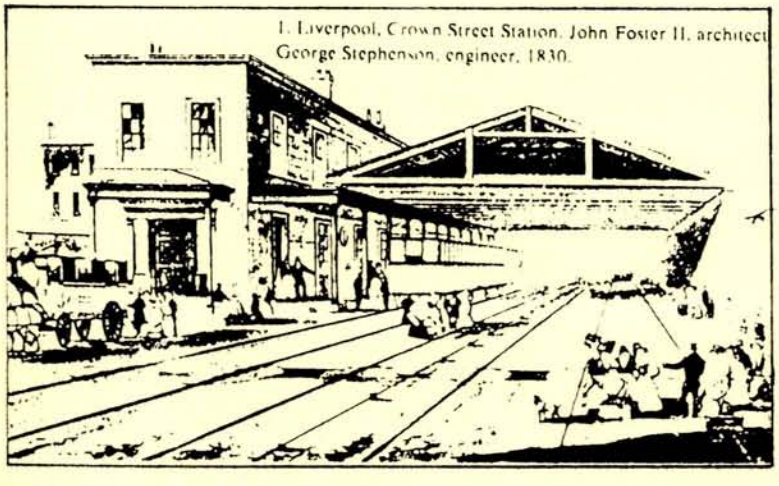
ARCHETYPE: (As defined by the Oxford English Dictionary)

1. THE ORIGINAL PATTERN OR MODEL FROM WHICH COPIES ARE MADE; A PROTOTYPE

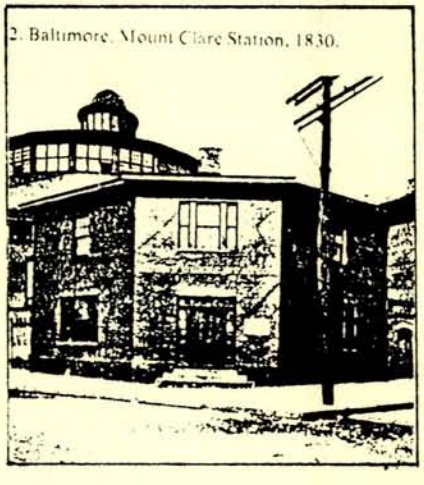
PROTOTYPE: (As defined by the Oxford English Dictionary)

1. THE FIRST THING OR BEING OF ITS KIND; ORIGINAL; MODEL; PATTERN

This is the first production of something that can be improved upon over time. The creation of the first railroad station happened, independently, in two places at once, in 1830: in England at Crown St., Liverpool, which is no longer in existence and at Mt. Clare, Baltimore, which is preserved as the first American depot.



1. Liverpool, Crown Street Station. John Foster II, architect George Stephenson, engineer, 1830.

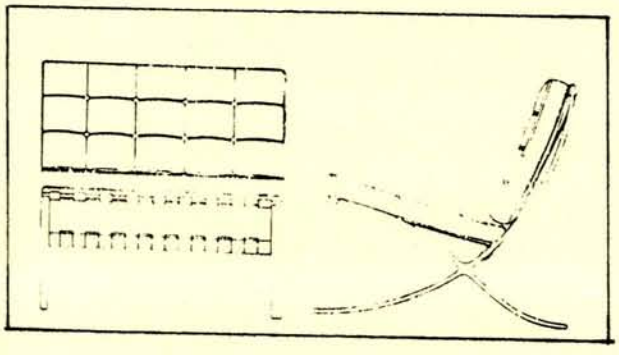


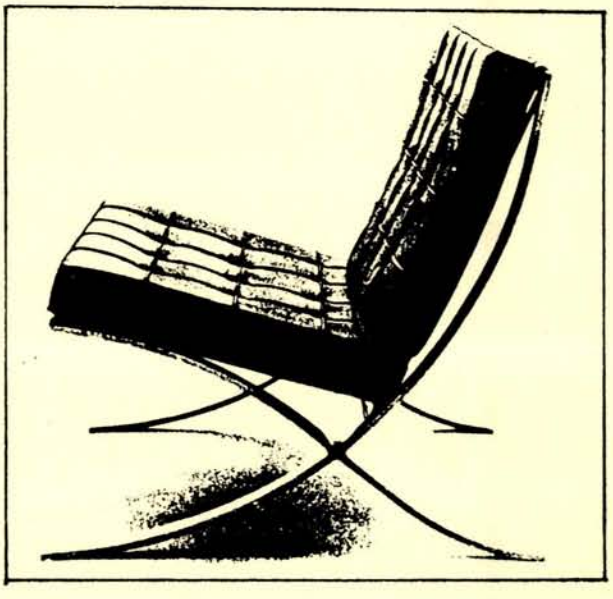
2. Baltimore, Mount Clare Station, 1830.

The only purpose of these stations was to house the ticket office. The Mt. Clare Station didn't have a train shed or even a porch. At this time the cars themselves were unroofed, since passengers were accustomed to riding outside of stage coaches. Although many inns and taverns were converted for use as train stops, these were the first purpose built railroad stations. As unpretentious as they are, they are the ancestors of the many colossal terminals of today.

2. A PERFECT EXAMPLE OF A PARTICULAR TYPE (WITHIN A RANGE OF PRODUCTION OR TIME)

This is the 'physical model' prototype. It can be seen as a paradigm, in other words the best model, or as a system, in regards to construction, site, space, etc. Obviously this type is affected by personal opinion, but generally the majority of the population, or an assembly of respected experts can agree on basic characteristics that make something an ideal sample of a specific kind.

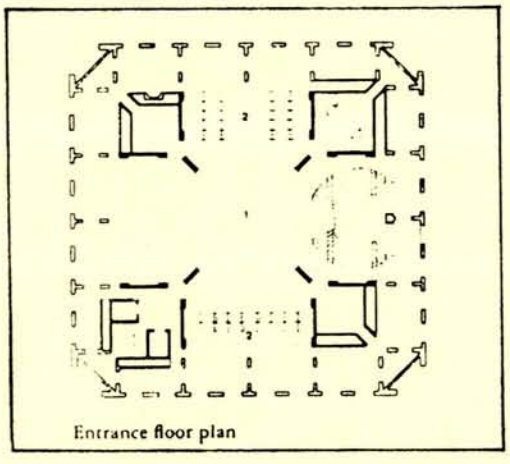


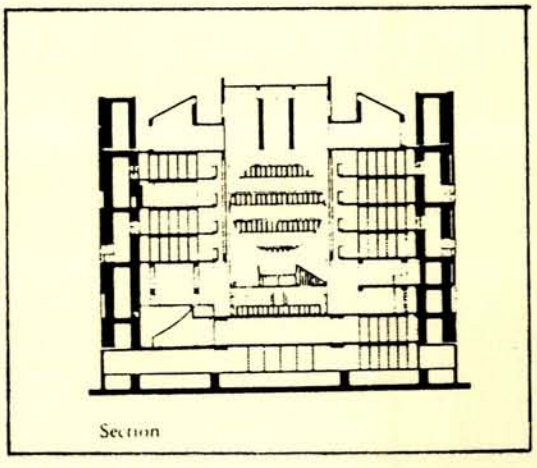


The Barcelona Chair is an excellent model of the contemporary classic. It was designed by Mies van der Rohe in 1929 to complement the German Pavilion at the International Exhibition in Barcelona, Spain. Most will consider it stately and elegant. Its visual lightness, simplicity, quality of materials and crafting made it the most renowned piece of furniture in the pavilion. Its impact on contemporary design has proved phenomenal and impossible to imitate.

3. A PERSON OR THING THAT SERVES AS A MODEL FOR ONE OF A LATER PERIOD

This is the 'conceptual' prototype dealing with program, concepts, and form. The Exeter Library, designed by Louis Kahn could be considered this type of prototype. Kahn was concerned with how the person and the book come together. He designed a great central space that is flooded with light falling through the roof, the stacks, and the large circular shapes cut in the walls. His concepts about the program determined the form. By analyzing certain important railroad stations of our past through history and typologies, I will be able to develop a conceptual prototype and use it to design a railroad station on a specific site.


Entrance floor plan


Section

TYPE: (As defined by the Oxford English Dictionary)

1. THE GENERAL FORM, STRUCTURE OR CHARACTER DISTINGUISHING A PARTICULAR KIND; A MODEL AFTER WHICH SOMETHING IS MADE

THESIS INTENT

The intent of this thesis is to study and re-interpret an existing building type, and to develop conceptual strategies for a prototype. It will demonstrate the advantages of the prototype and how it can be used as a building block when dealing with specific site considerations. My conclusions drawn from these analyses will depict the evolution of, and develop a relationship between prototype and type.

VEHICLE DESCRIPTION

"Railroad termini and hotels are to the nineteenth century what monasteries and cathedrals were to the thirteenth century. They are truly the only real representative building we possess..."[5]
Building News 1875

The building of railroad stations presupposes the existence of railways. Although early railroad stations were not purpose built, but were probably hastily converted homes, hotels, and inns; over the years, as the needs of the railroad and its customers developed, so did the stations. They have achieved great recognition as gateways and have acted many times as

the generator of large cities. Because of this long history as a building type and the many functional aspects, the railroad station lends itself to becoming a prototypical form. Repetition is often the means used to demonstrate the success of a prototype, and the re-occurance of certain elements (railroad stations) is an inherent quality of the rail line. For these reasons the railroad station is an appropriate vehicle to demonstrate my thesis.

5. Meeks, Carroll Railroad Station; An Architectural History. (Yale University Press, New Haven, 1956)

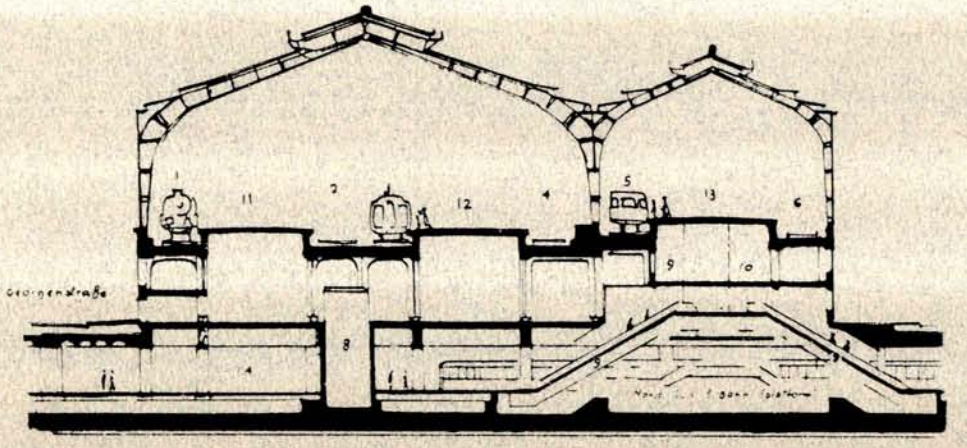
S I T E D E S C R I P T I O N

The site I have chosen is a small town located at the eastern tip of Long Island. The current station is small and isolated. The site is large with possible connections to the Bay for expansion to link the Connecticut Ferry lines to Montauk. The 'Main Street', which is Montauk Highway is located approximately two miles to the south, inland. There really are not many shops or stores and the town itself is in need of further growth. This appears to be in the process with a number of restaurants and the development of townhouses on and along the road leading to the railroad station.

Montauk is a rural 'exclusive' summer resort used by New York Cities rich and famous to escape the oppression of the City, although there are many permanent residents. On any given Friday or Sunday night, between Memorial Day and Labor Day, cars line up bumper to bumper for the long trek to or from the Hamptons. The only road accessing Montauk is this road, Montauk Highway, which is a long, one lane, curving street. This roads speed limit varies from 15 mph to 50 mph as it curves and meanders through little towns along the way. It is easy to see that this 'Highway' is not sufficient to meet the needs of Montauk Town. These summer people bring needed money to the towns of the Hamptons, and for Montauk to continue to exist it needs better accessibility to people.

Not only will this Thesis address the termination of the axial sequence to the very tip of Long Island, it will also address the much needed accessibility problem and give Montauk direction and organization. The fact that Montauk is the end of the line gives it added potential for the adaptation of a prototype. The small community facet allows for a more indepth

study of the type and prototype aspect, as opposed to a large scale urban design, with more site context. The sprawling open site also allows for growth and expansion of the prototype with respect to site and community.



PROGRAM

P R O G R A M S E L E C T I O N

TRAIN STATION		
1.	Grand Hall	1000 sq.ft.
2.	Ticket Sales Office	200 sq.ft.
3.	Offices	200 sq.ft.
		3 @ 150 sq.ft.
4.	Baggage Service and Storage	1000 sq.ft.
5.	Maintenance Offices	2 @ 300 sq.ft.
6.	Train Repair Shed	1000 sq.ft.
7.	Parts Storage	800 sq.ft.
8.	Engineer/Conductor Office	300 sq.ft.
MAIN WAITING AREA		
1.	Atrium Space	1500 sq.ft.
2.	Information Center	400 sq.ft.
3.	Public Lockers	600 sq.ft.
4.	Telephones	300 sq.ft.
SERVICES		
1.	Car Rental	4 @ 400 sq.ft.
2.	Bus Information Center	100 sq.ft.
3.	Taxi Office	100 sq.ft.
4.	Travel Agency	300 sq.ft.
5.	Tourist Bureau	300 sq.ft.
EMPLOYEE FACILITIES		
1.	Staff Lounge Area	500 sq.ft.
2.	Lockers	200 sq.ft.
3.	Storage	200 sq.ft.

RETAIL SPACE

1.	Shops (retail, bank, newstand)	5 @ 400 sq.ft.
2.	Offices	5 @ 100 sq.ft.
3.	Storage	5 @ 100 sq.ft.

RESTAURANT / SNACK BAR

1.	Dining Area	1200 sq.ft.
2.	Waiting Area	100 sq.ft.
3.	Bar	400 sq.ft.
4.	Kitchen	500 sq.ft.
5.	Storage	300 sq.ft.
6.	Office	100 sq.ft.

FERRY TERMINAL

1.	Landing Dock	4500 sq.ft.
2.	Covered Waiting Area	3000 sq.ft.
3.	Ticket Office	800 sq.ft.
4.	Administration Office	300 sq.ft.

SUPPORTIVE SPACES

1.	Restrooms	A.R.
2.	Structural and Mechanical (15% bldg.)	3500 sq.ft.
3.	Circulation (20% bldg.)	4600 sq.ft.

PLATFORM

1.	Arrival and Departure From Trains	8000 sq.ft.
2.	Covered Platform	A.R.

PARKING

1.	Taxi Stand	2000 sq.ft.
2.	Bus Stop	2000 sq.ft.
3.	Rental Car Parking (30 cars)	10000 sq.ft.
4.	Long Term Parking (50 cars)	15000 sq.ft.
5.	Short Term Parking (200 cars)	65000 sq.ft.

P R O G R A M D E S C R I P T I O N

TRAIN STATION

1. Station Administration: 800 s.f.

The station services deal with the management aspect of the railroad. The station master and train master's offices are located here. Their responsibility is to overlook all of the operations that exist with the station and the operations of the train.

Services: proper lighting, heating ventilation, tele-communications.

2. Ticket Offices: 200 s.f.

This part of the station deals with the financial aspects of the railroad. One supervisor oversees everything from the sale of tickets to the station's overall financial success.

Services: proper lighting, heating, ventilation, tele-communications.

3. Baggage, Mail, Package Express: 1,000 s.f.

This element is for the storage of baggage and the shipment of baggage, mail, and packages.

Services: loading docks, forklift and handtruck circulation, storage.

4. Waiting area/Grand Hall: 2,000 s.f.

This area is where people wait for the arrival and departure of the trains. People read, sit and talk in this area while awaiting trains and it is usually one large space.

Services: lighting, seating, mechanical services, restrooms, service entry.

5. Platforms:

The platforms are where the loading and unloading of the trains occurs.

Services: proper lighting, directional information, tele-communications, p.a. systems.

6. Cleaning facilities and equipment: 200 s.f.

The care and upkeep of the entire station is based in this area.

7. Train repair shed/ part storage: 1,000 s.f.

Storage for equipment to repair trains, small office area for working process of the repair shed. It also contains storage of large and small parts for the locomotive and passenger cars.

Services: small individual heating units to be turned on and off as needed, proper lighting, electrical sources for tools.

RETAIL

Shops: 400 s.f. per shop

The shops in the station are provided for the use of the passengers, people who work in the station, visitors and the surrounding residents of Montauk. The rental spaces provide revenues that offset the operational costs of the station while providing the passengers with the items they may need.

Services: proper lighting, display areas, flexible construction, heating and ventilation, tele-communications, storage areas, offices, and employee restrooms.

Loading docks and service entries from the rear of these spaces are vital to the servicing of these shops. Garbage removal or storage areas require easy access from the service areas of these shops. This space should be hidden so that it does not interfere with the exterior expression of the building or the building complex.

RESTAURANT

1. Main Dining Space: 1000 s.f.

This space could have an intimate character and should contain seating and guest facilities for special events or gatherings. A bar and fast service eating establishment may also be included.

Services: proper lighting, heating, ventilation, p.a. system, seating.

2. Waiting Area: 100 s.f.

The Waiting area should be pleasant and contain seating. Public bathrooms could be located off this space.

3. Kitchen: 400 s.f.

This space is to be used for food preparation, cooking, and organization done before serving the customer.

Supportive Spaces: Washroom/dishwashing, meat preparation area, refrigerator/frozen storage, common storage, employee facilities, linen and paper storage, ventilated storage, cleaning area, manager's office.

Services: proper lighting, heating, ventilation, storage, small offices, delivery area, garbage pick up and storage.

INFORMATION CENTER

Information Center: 300 s.f.

This space will contain train and possibly ferry information, general and historical information about Montauk, and could be displayed to the general public.

POSSIBLE FERRY TERMINAL

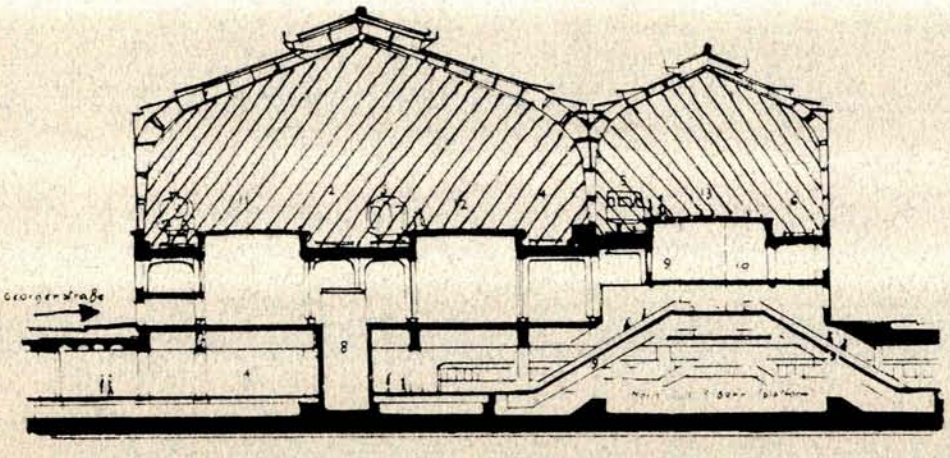
Terminal: 4000 s.f.

It should contain a landing dock and covered waiting area for it's passengers. A small structure should be located by the dock to contain an office for ticketing and administrative purposes and public restrooms. The terminal should be located in close proximity to the complex so it is convenient for use by the passengers.

Services: proper lighting, heating, ventilation, storage, special construction for vehicular loads.

Parking: As Required

Parking will be available to the workers in the station, the travelers, and the people outside of the train station. It should also include long term and short term areas.



ANALYSIS OF

PROGRAM

PROGRAM ANALYSIS

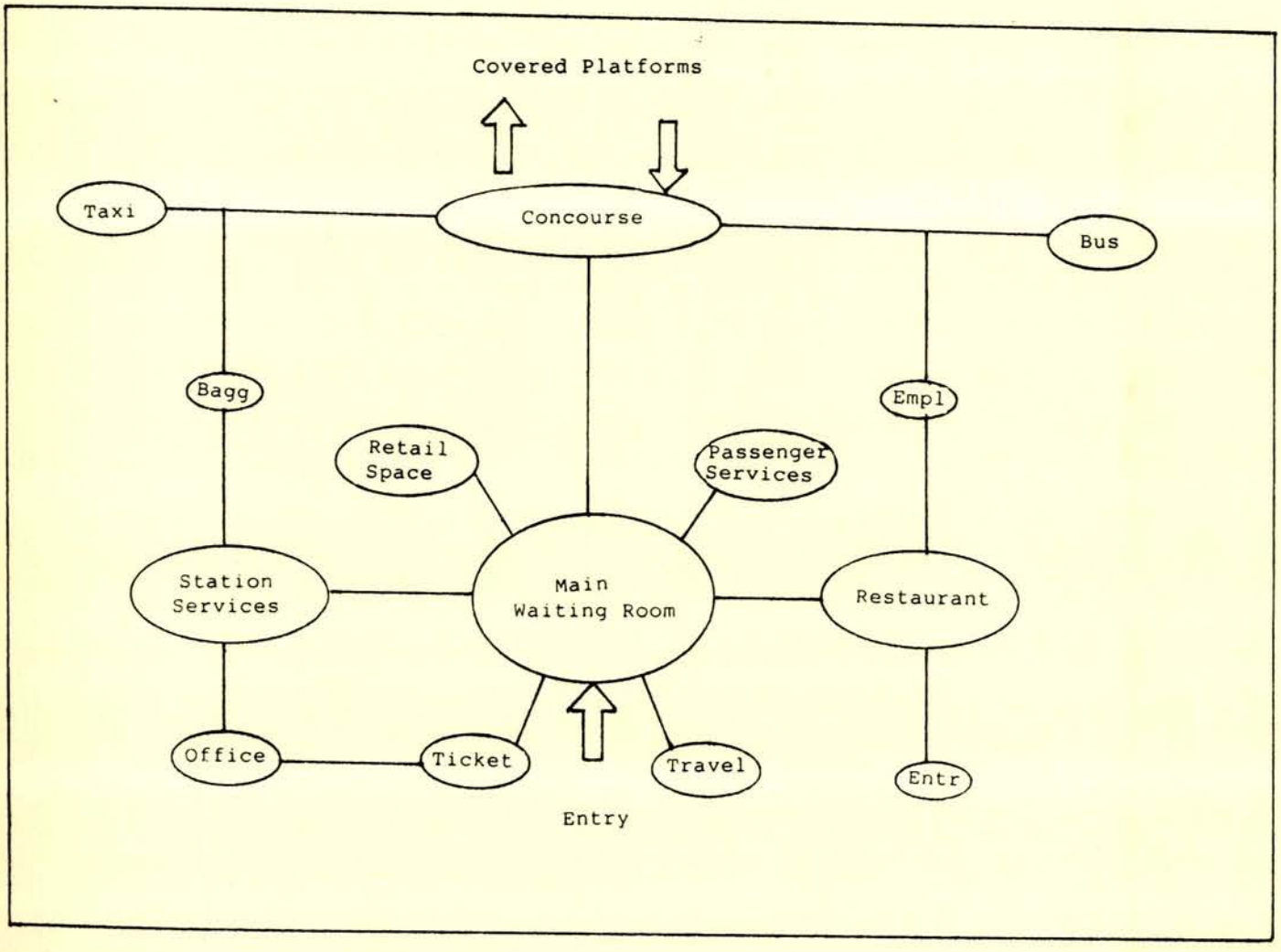
The program is derived from a study of historical precedents and the actual necessities of the site. The primary piece of the program, the railroad station, will serve as the head piece. There are three major components to the station; the entrance to the main waiting area, the concourse, and the point of departure - the platform. The program also contains a restaurant, commercial space for retail, and a ferry link to Orient Point (the northfork of Long Island) and Connecticut. These additional elements will help to ensure that the site will be actively used throughout the day.

The main waiting room is the central piece of the station. It is the space in which the people gather to for the arrival and departure of the trains. Services such as ticket sales, baggage, lockers, telephones, etc. are located in proximity of this space. The retail shops and the restaurant would also be placed nearby. The restaurant will also be equipped with a snack bar for those without much time. The commercial space will include a bank, a newsstand and some retail shops.

The concourse is a space of movement and circulation to the platforms, the bus stop, and taxi stand. In earlier train stations the concourse was typically built out of light iron or steel and glass. It acted as a transition space between the traditional building and the technology of the trains.

The platform is located at grade and is where the loading and the unloading of the passengers takes place. Sufficient clearance should be provided between the center line of the nearest track and the edge of the platform which is generally a minimum width of 12 feet. All the tracks will remain intact since they are used daily by the Long Island Railroad.

The passengers will consist of everyday commuters to New York City, numbering between 50 and 100, and many day-trippers to and from the East End. Many commuters maintain apartments in New York City and only travel to their country homes on the weekends. During the weekends and especially during the summer months, the trains passengers will be visitors, vacationers, and summer residents. These weekend and summer riders number between 400 and 500 at peak times. Although these summer people are considered by many to be the elite, most are just white collar workers trying to get out of the city.

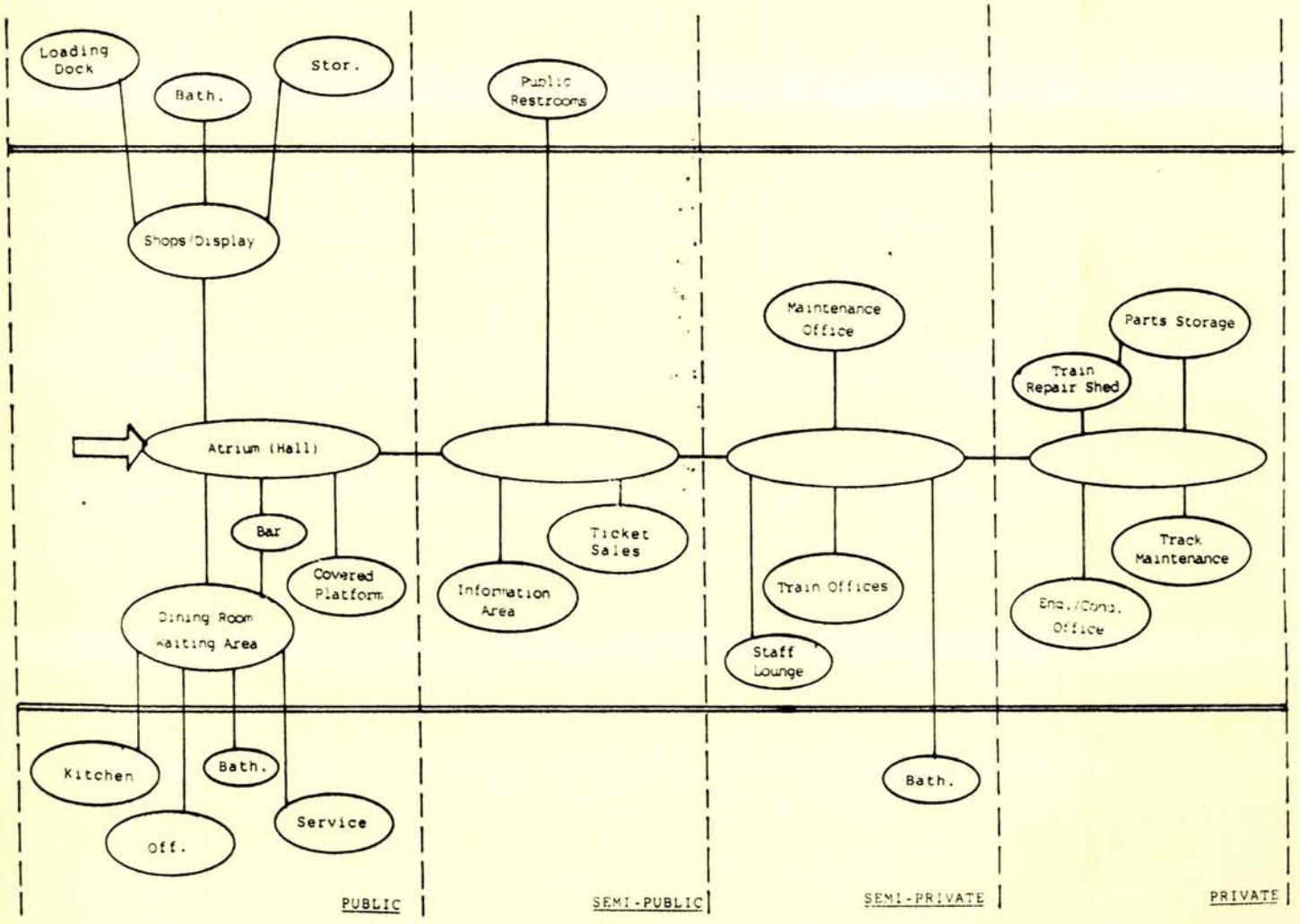


B U B B L E D I A G R A M

Z O N I N G D I A G R A M S

ZONING: PUBLIC VS. PRIVATE

PUBLIC	SEMI-PUBLIC	SEMI-PRIVATE	PRIVATE
Shops/Display	Public Restrooms	Maintenance Office	Train Repair Shed
Dining Room	Information Area	Train Offices	Parts Storage
Waiting Area	Ticket Sales	Staff Lounge	Eng./Cond. Office
Bar			Track Maintenance
Atrium (Hall)			
Covered Platform			



Z O N I N G I S S U E S

ZONING: SPACE

OPEN SPACE

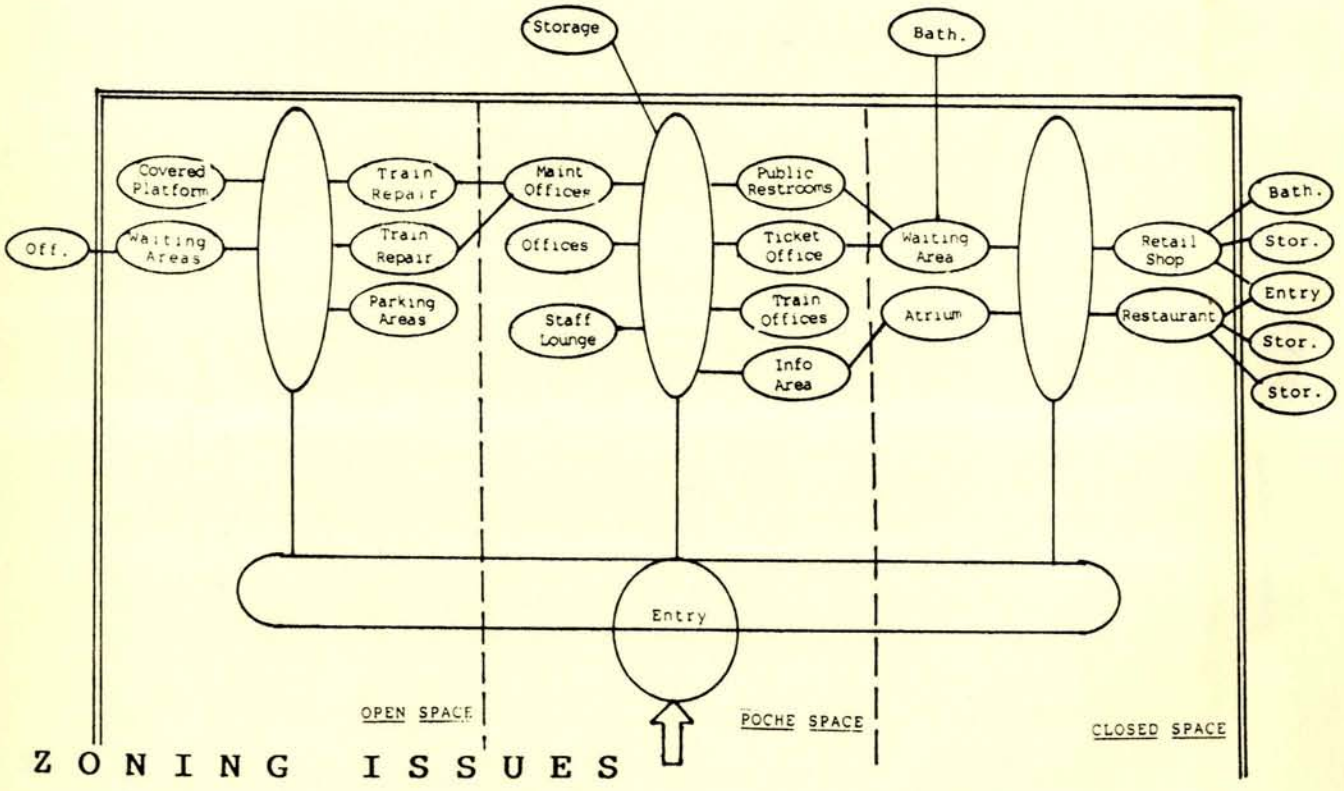
Covered Platform
Parking Areas
Train Repair Shed

POCHE SPACE

Storage
Public Restrooms
Ticket Office
Offices
Maintenance Offices
Train Offices
Information Area
Staff Lounge

CLOSED SPACE

Atrium
Retail Shop
Restaurant
Waiting Area



ZONING ISSUES

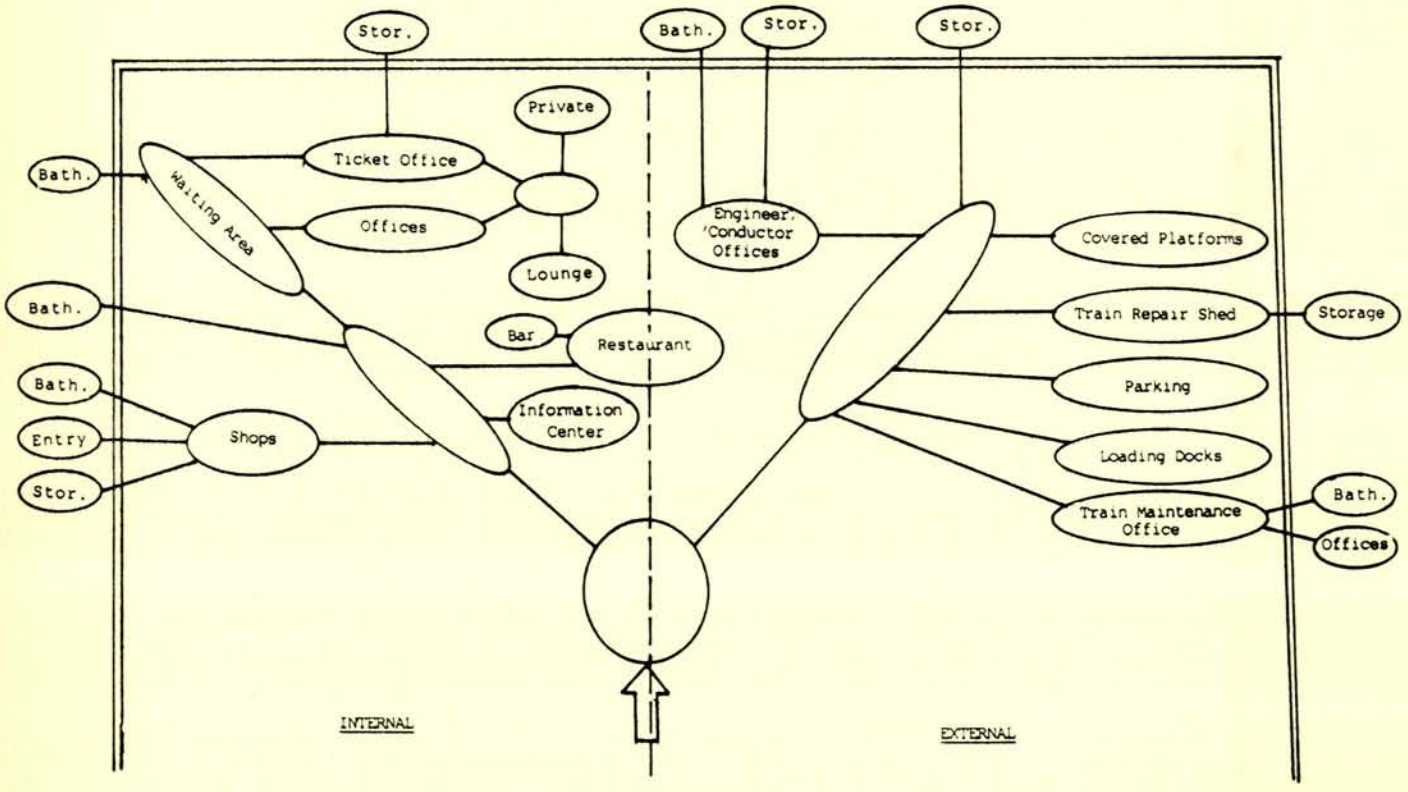
ZONING: POSITION IN BUILDING

INTERNAL

Shops
Restaurant
Bar
Waiting Area
Ticket Office
Offices
Private Offices
Information Center

EXTERNAL

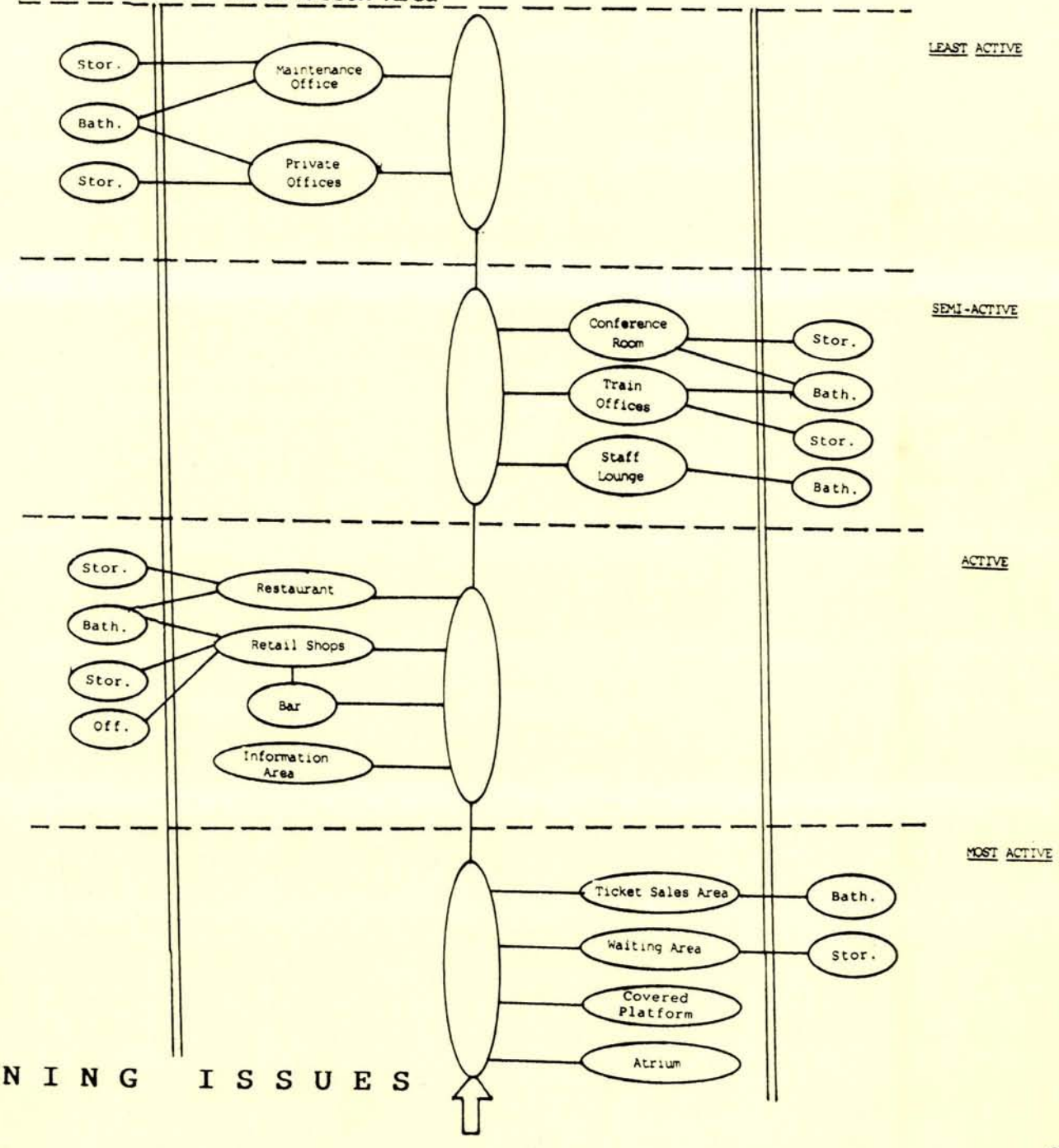
Covered Platforms
Parts Storage
Train Repair Shed
Train Maintenance Office
Engineer/Conductor Offices
Loading Docks
Platforms
Parking



ZONING ISSUES

ZONING: LEVEL OF ACTIVITY

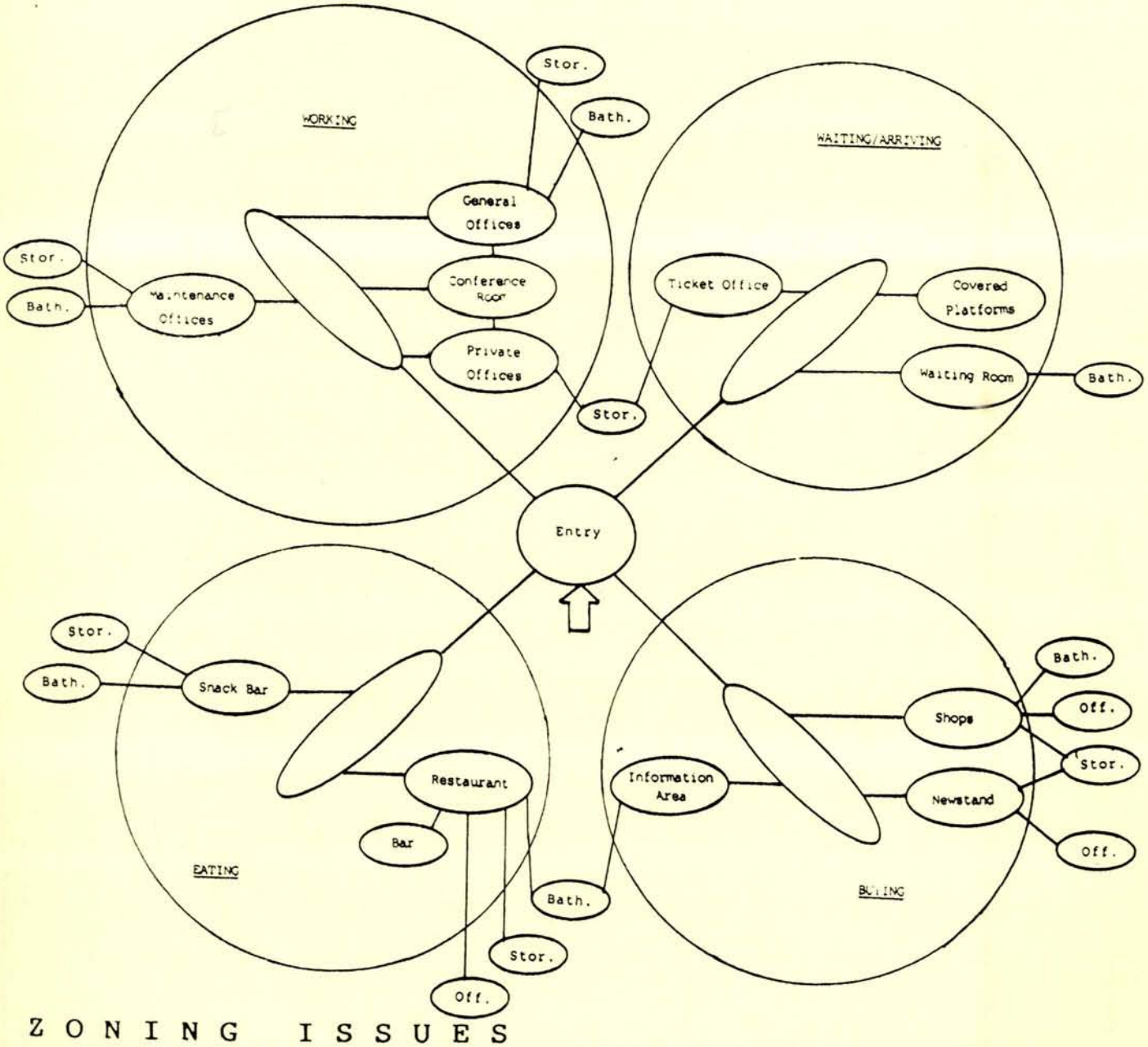
MOST ACTIVE	ACTIVE	SEMI-ACTIVE	LEAST ACTIVE
Waiting Area	Retail Shops	Conference Room	Maintenance Office
Covered Platforms	Restaurant	Train Offices	Private Offices
Ticket Sales Area	Bar	Staff Lounge	
Atrium	Information Area		



ZONING ISSUES

ZONING: FUNCTION TYPES

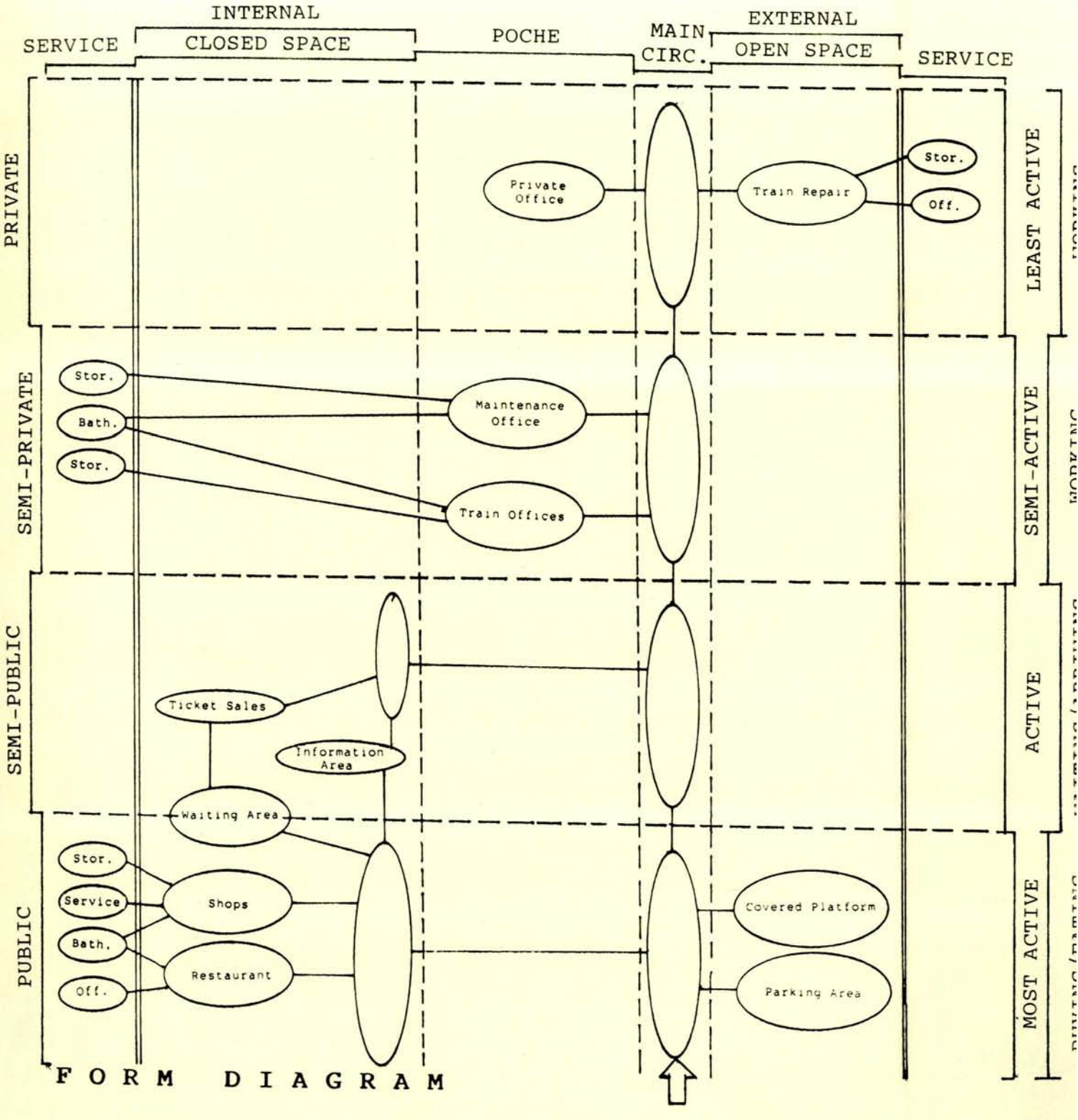
WORKING	BUYING	EATING	WAITING/ARRIVING
General Offices	Shops	Restaurant	Waiting Room
Conference Room	Newstand	Bar	Covered Platforms
Private Offices	Information Area	Snack Bar	Ticket Office
Maintenance Offices			

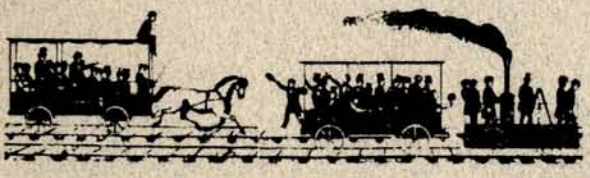


Z O N I N G I S S U E S

F O R M D I A G R A M

ZONING ISSUES: PUBLIC VS. PRIVATE; SPACE; POSITION; ACTIVITY LEVEL; FUNCTION TYPES.





HISTORIC

PRECEDENTS

H I S T O R I C P R E C E D E N T S

To create an overall organization to this precedent study it will be separated into two sections. First it will study the Railroad Station through history and examine important key stations to see how they have evolved, and finally it will look at the different typologies of stations, usually generated by site, program, and topography.

The primary importance of this survey is to study the overall organization of the different stations programmatic spaces as well as the flow of circulation through those spaces. Other issues that are studied are the stations site and how each relate and deal with the pressures of the surrounding context. The survey is an effort to determine how the typology of the station has changed over the years in order to better understand how it can be transformed in the future.

RAILROAD HISTORY

In the United States, John Stephens built the first steam locomotive and demonstrated it in New Jersey, in 1825. This initiated the era of steam train travel. The first railroad company in the United States was the Baltimore and Ohio, chartered in 1827. As more companies were founded, on-going battles began to take place between them, for entrance into the larger cities. Many cities were criss-crossed with unconnected lines during these early years.[6]

Although the first 'railroads' were constructed in European mines in the 16th century, the creation of the first modern railroad happened independantly, in England and the United States, at once, in 1830. The first British station was at Crown Street, Liverpool and is no longer standing. (Fig. A) The first American depot is the Mount Clare Station, in Baltimore. (Fig. B) It is hardly more than a ticket office. There is no train-shed or even a porch. This station is late Georgian style, built of brick, and extremely humble.[7]

From its inception, the railroad station was the simplest and most chaste of forms, founded in a combination of pioneering vernacular and colonial buildings. The American station has continually moved through style after style, growing and changing. During the 19th century, due to competing railway companies, the station grew quickly, becoming a major force in the economic and social life of nations throughout the world.

In the 1830's and 1840's American railway architecture was overwhelmingly horizontal, with gradually more vertical elements, until they became dominant. The styles turned to Greek revivalist, colonial Georgian, and other classical styles. Many early stations were simply large barn-like structures, that could adopt to a variety of stylistic detail.

During the late 1840's and 1850's, horizontality and verticality of the station, seemed to be in equilibrium. The most common expression of this point is the Italian villa or 'Railroad' style. They combine low masses with one or more towers. King's Cross Station (Fig. C) in London is built as horizontal blocks, combined with numerous vertical accents and towers.[8]

For many years the chief characteristics of the American Railroad Station was the vast train shed covering the trains and extending the station over the tracks. The station combined these great sheds, of steel and glass, with the solid classical buildings of the passenger complex, to present a clear image for the railroad. It gave the station, an unprecedented building type, an identity.

The train sheds, providing for passenger comfort from the elements, were built to be scaled to the trains. They were very similar, in that they both used the most modern technology available for their construction. Many sheds of this time have similar spans of 250 to 300 feet, but in New York the trains entered over electrified lines, and approached the station through subways.

During these first decades of the railroad stations development, so many ingenious experiments were being conducted that the evolving station types elude ready classification.[9] The station, like most other building types, tended to follow 19th century fashions of historicism and eclecticism. Stations took the form of temples, cathedrals, basilicas and even Roman baths.

Over time, rail transportation grew and the necessity for more trains increased. As the train shed expanded, so did the passenger buildings. The stations took on a monumental scale and became great and beautiful buildings that played an important role in the community. Certain basic Architectural forms

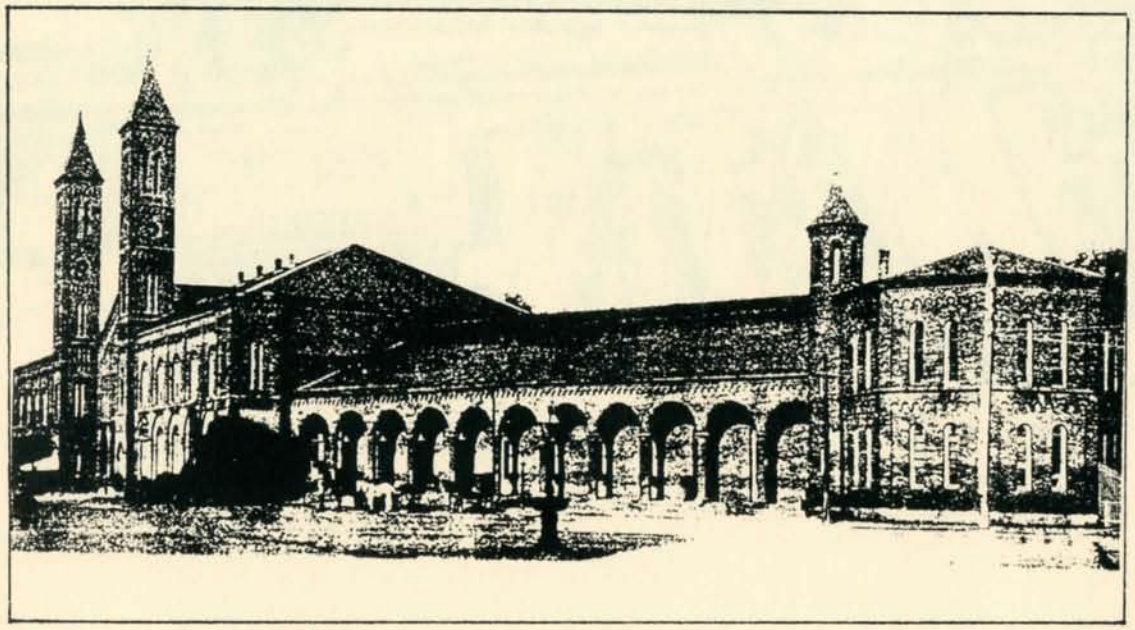
were the arch and the tower, sometimes a clock tower. The arches, primarily semi-circular, tend towards a conservative nature while the towers, rather stumpy and lacking a spire, seemed more progressive.

"The axiom that 'a railroad station should look like a railroad station' would be subscribed to without question by any functionalist architect. In the early 19th century such dogmatism was impossible. In the 1830's the question was 'Which station has the right look?'" A new building type was evolving and there were many approaches. Although it may seem ad hoc, the Architects of the early 19th century were remarkably successful, as we are generally able to recognize a station for what it is.[10]

"The railroad station was a century old in 1930. Created as a solution to a new architectural problem, it had by then passed through experimental and mature phases and more recently a period of gigantism. The American depot for the first third of its life feebly imitated European stations, vainly struggling to equal them. It was not until the 1870's, when enough large cities existed relatively close to one another (as in Europe from early times), that comparable stations began to rise in the United States."[11]

7. Meeks, Carroll Railroad Station, An Architectural History. (Yale University Press, New Haven, 1956.) Page 26.
8. Ibid., Page 32.
9. Ibid., Page 89.
10. Holland, Harry Travellers' Architecture (George Harrap and Co. Ltd., London, 1971.) Page 65.
11. Meeks, Carroll Railroad Station, An Architectural History. Page 102.

Union Station at Providence, Rhode Island was built by Thomas Tefft in 1848. It is considered by many to be the first major American Railroad Station. The station is a large one-sided building, located tangent to the tracks that loop. Sheds located over spur tracks at either end are turned in to form a half hexagon. Although the plan has been lost, there were supposedly large waiting rooms with possible office space on the second floor. This station has won awards as one of the twenty best buildings in the United States. Unfortunately, Union Station has burned down and not many drawings remain.



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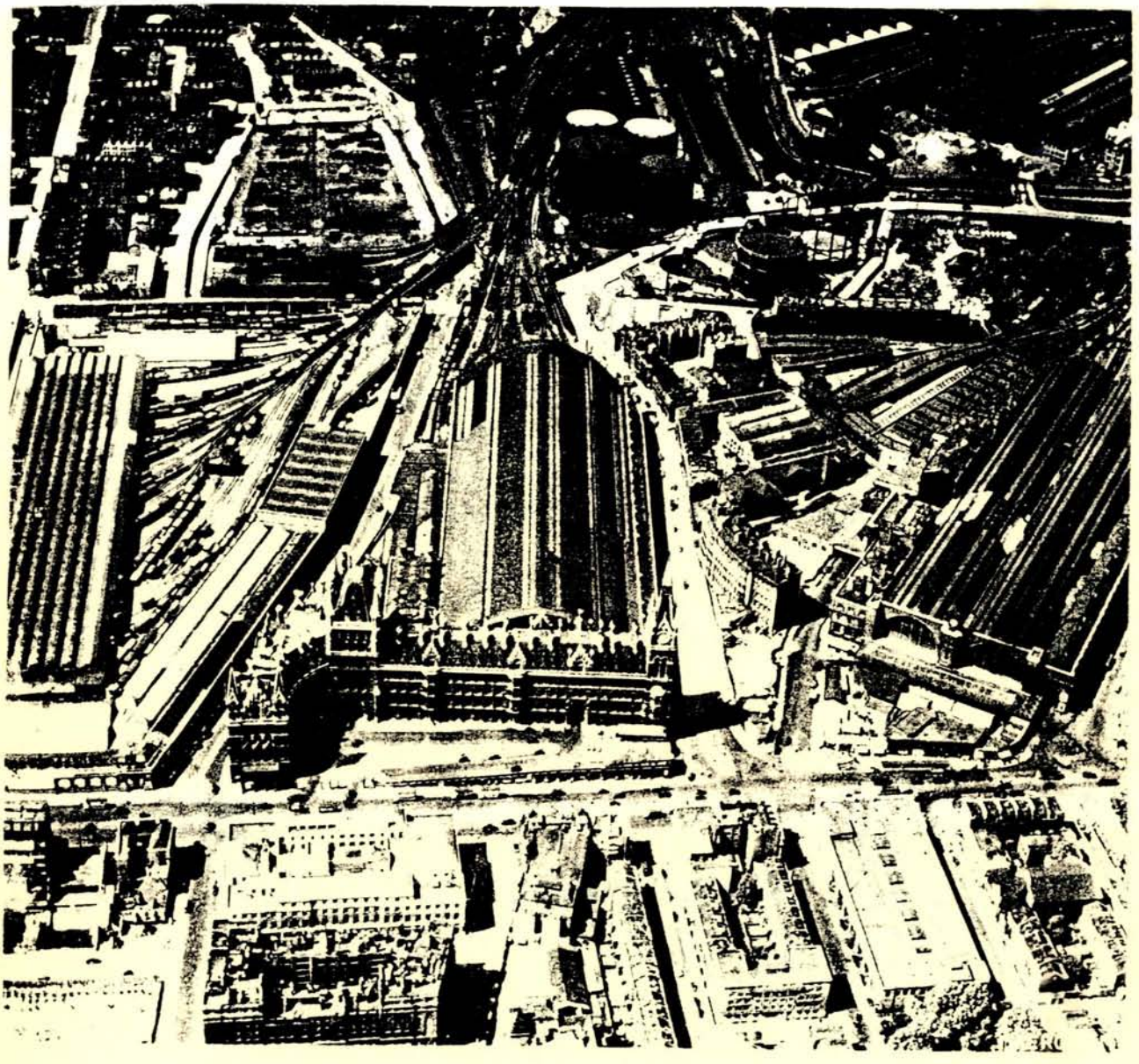
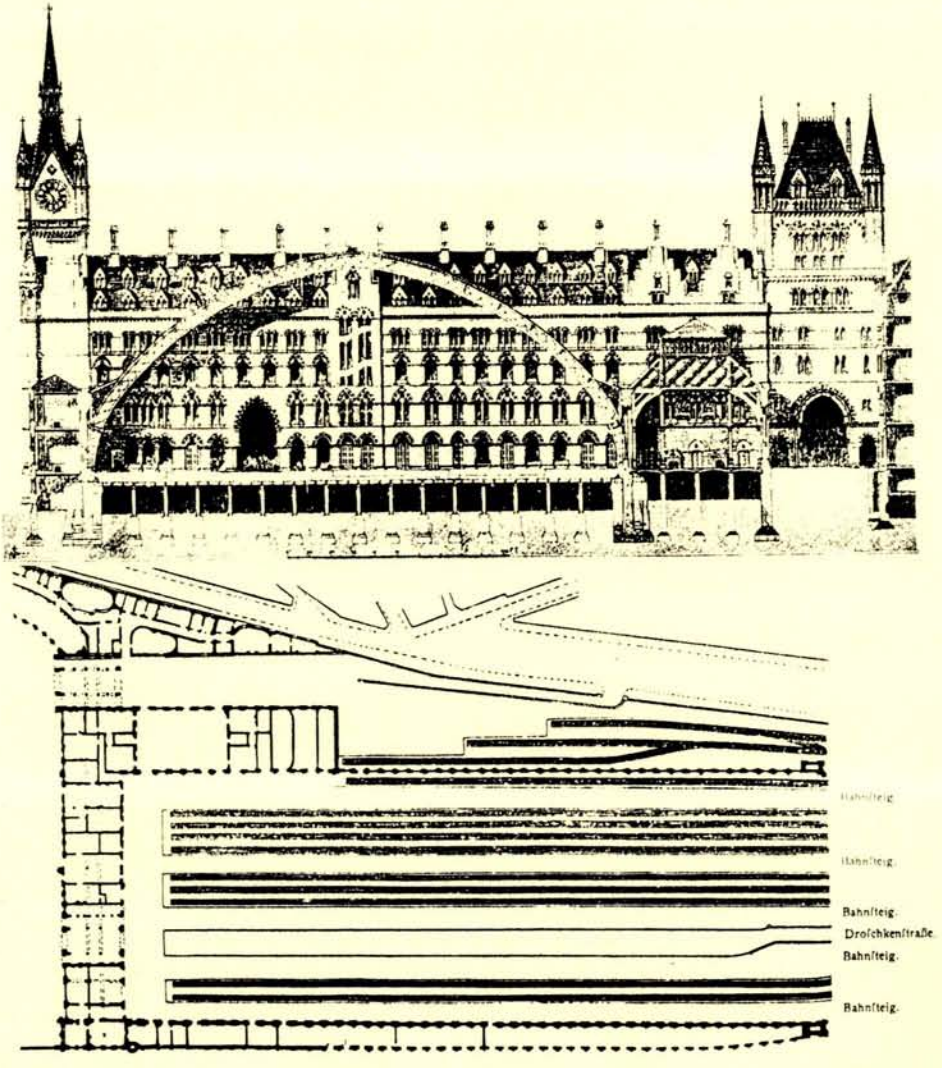


1 St Pancras station from the air. The Euston Road runs across the foot of the picture. Somers Town goods station is on the left, separated from the passenger station by Midland Road. The projection of the top of the tram-shed through the lowering of the hotel, appears here plainly (cf. p. 52). To the right of the station is Pancras Road, with the curved Great Northern Hotel backing on to it

ST. PANCRAS 1866

St. Pancras Station was the object of considerable discussion before it was built in 1866. Many earlier stations were analyzed to try to keep from making similar mistakes. There is a hotel located adjacent to the station, the Pancras Hotel. It was also the subject of extreme controversy. People saw the station as a piece of engineering skill, and the hotel as an overly ornamented disgrace. The station was the last of its line and only three more railway hotels were built. The building is of the head house type without a major waiting area. As seen in the section and plan, the train shed is clearly the main space. Even the squat towers at either end can't really compete.



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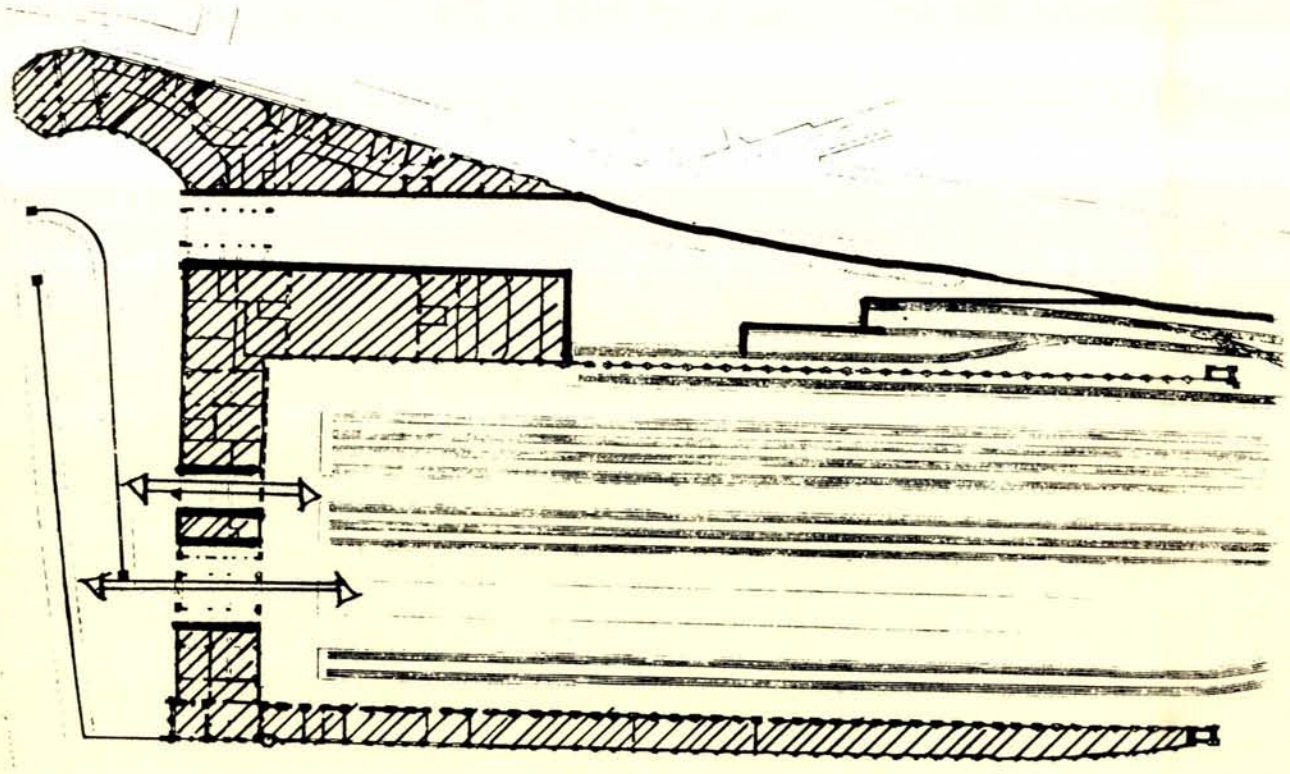
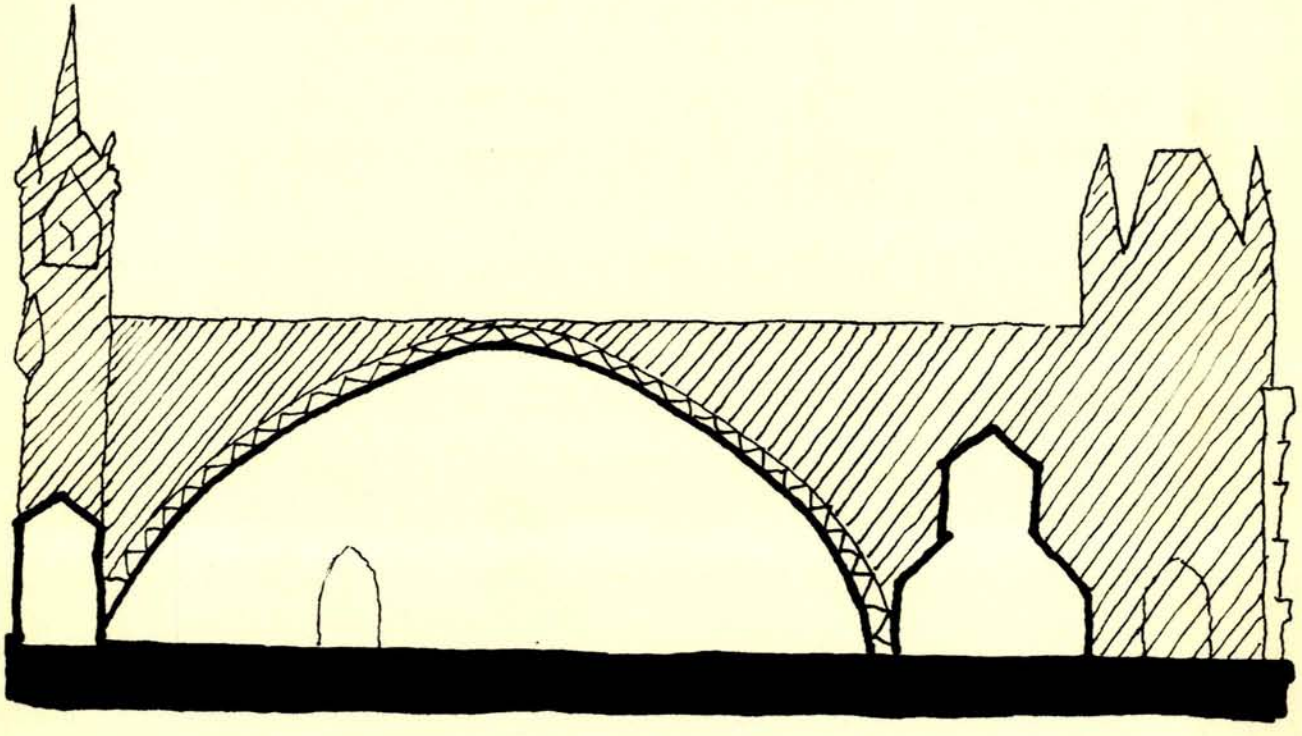
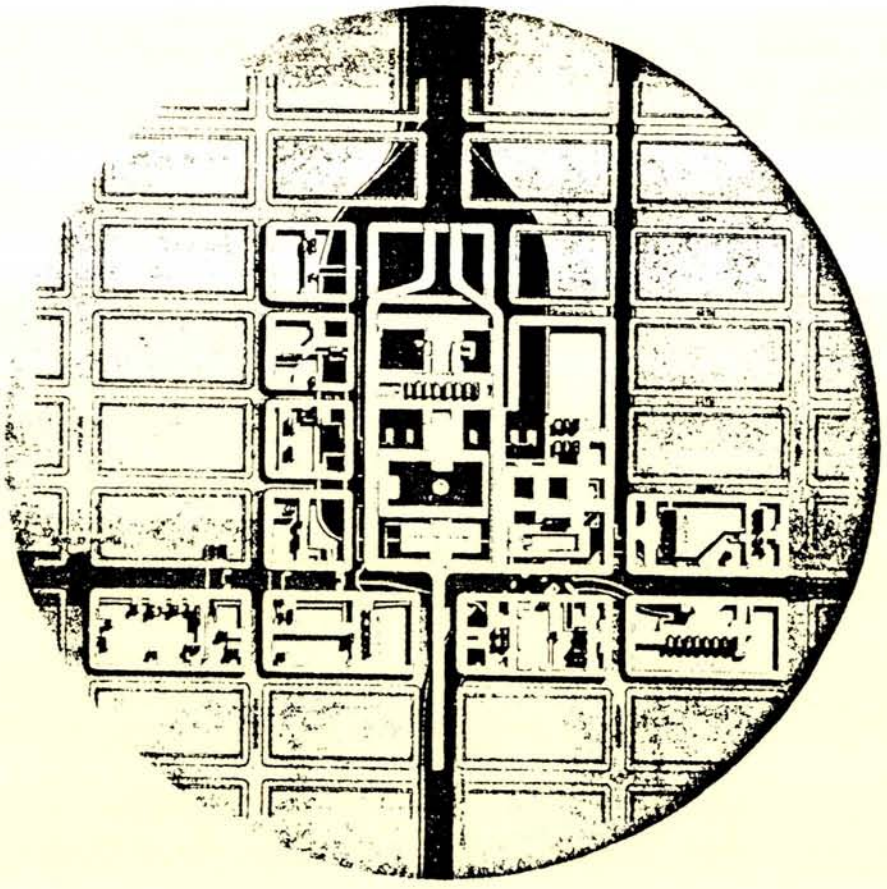
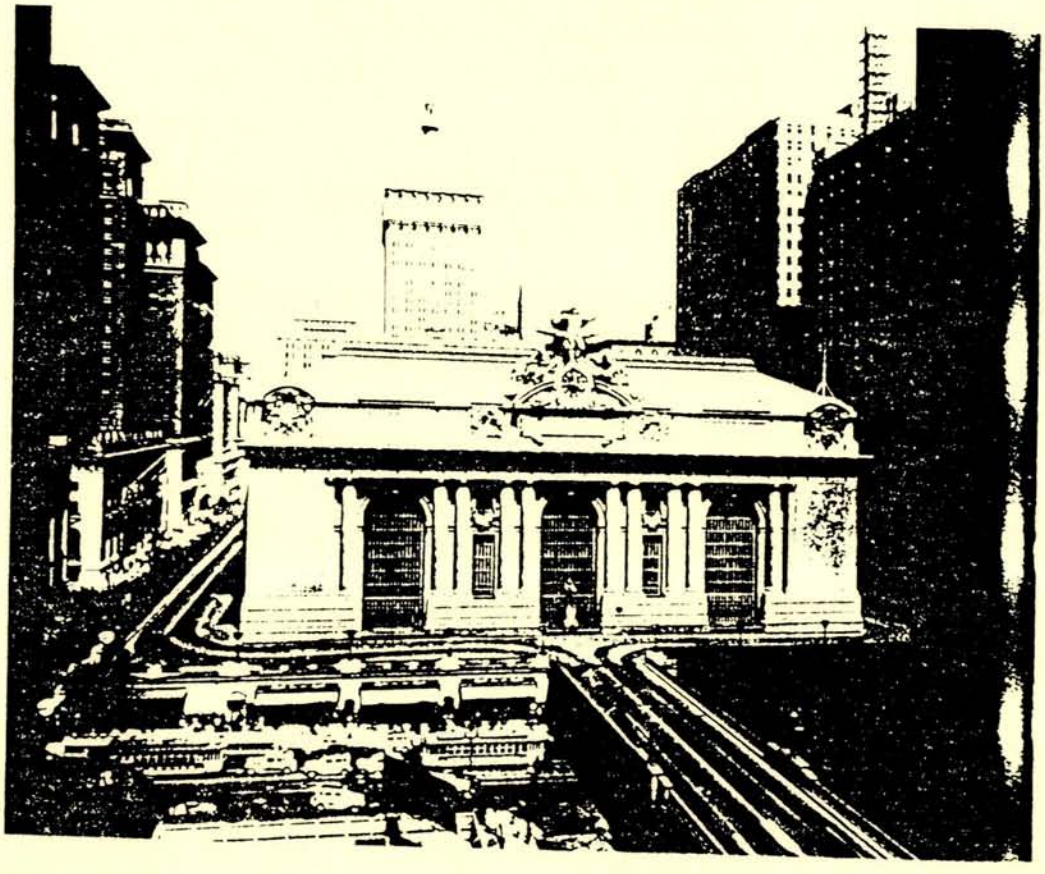




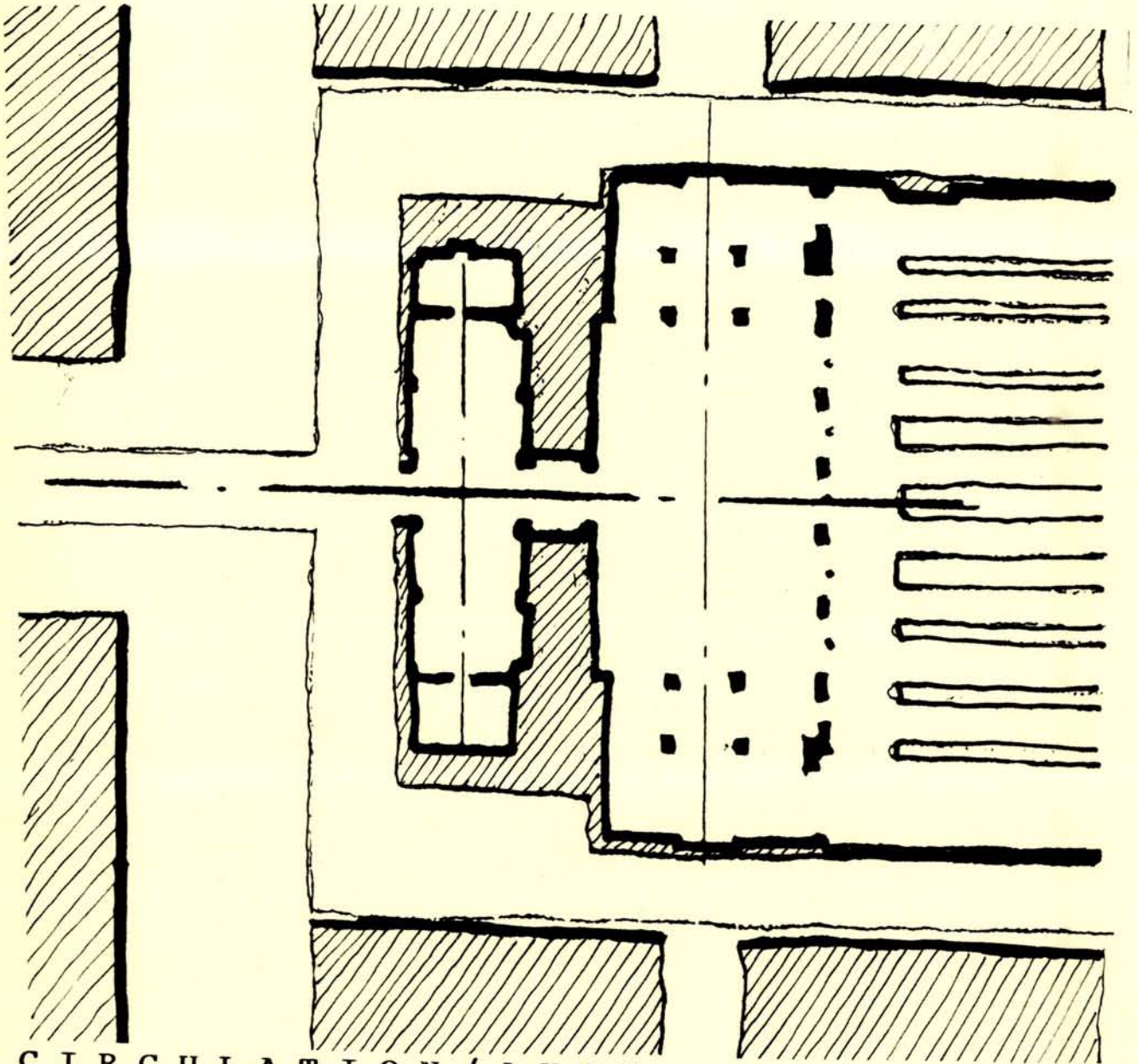
CIRCULATION



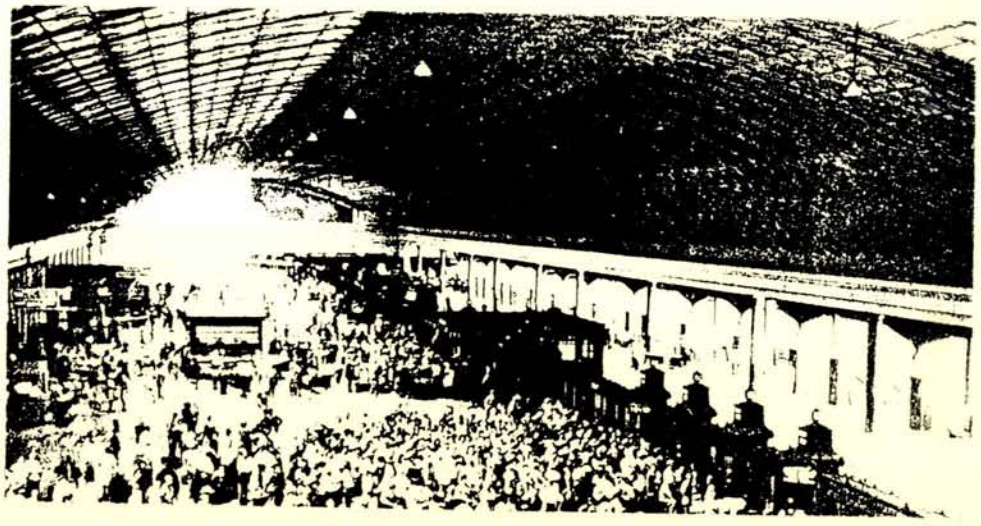


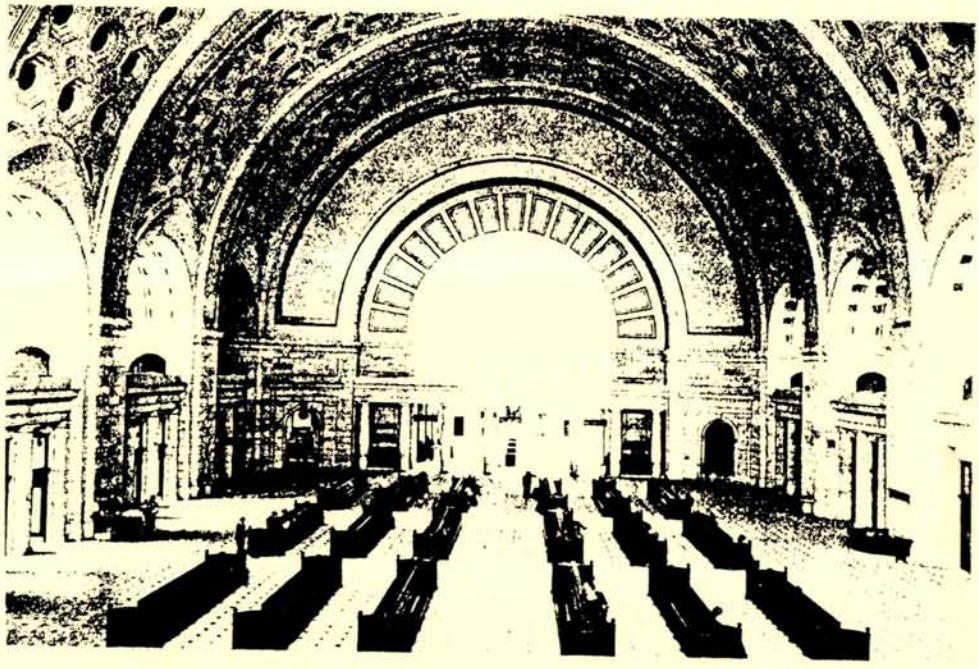
RAND CENTRAL STATION 1869

Grand Central Station in New York City was designed by Messr Reed and Stem, with Warren and Wetmore, in 1871. The station could not meet its needs and was enlarged twice. The present station was opened in 1913. It is the only building located in the middle of an avenue, rather than alongside it. This sets up an axial relationship with Park Avenue, which terminates its main waiting area. The main waiting area is separated from the concourse, making this station the concourse type.



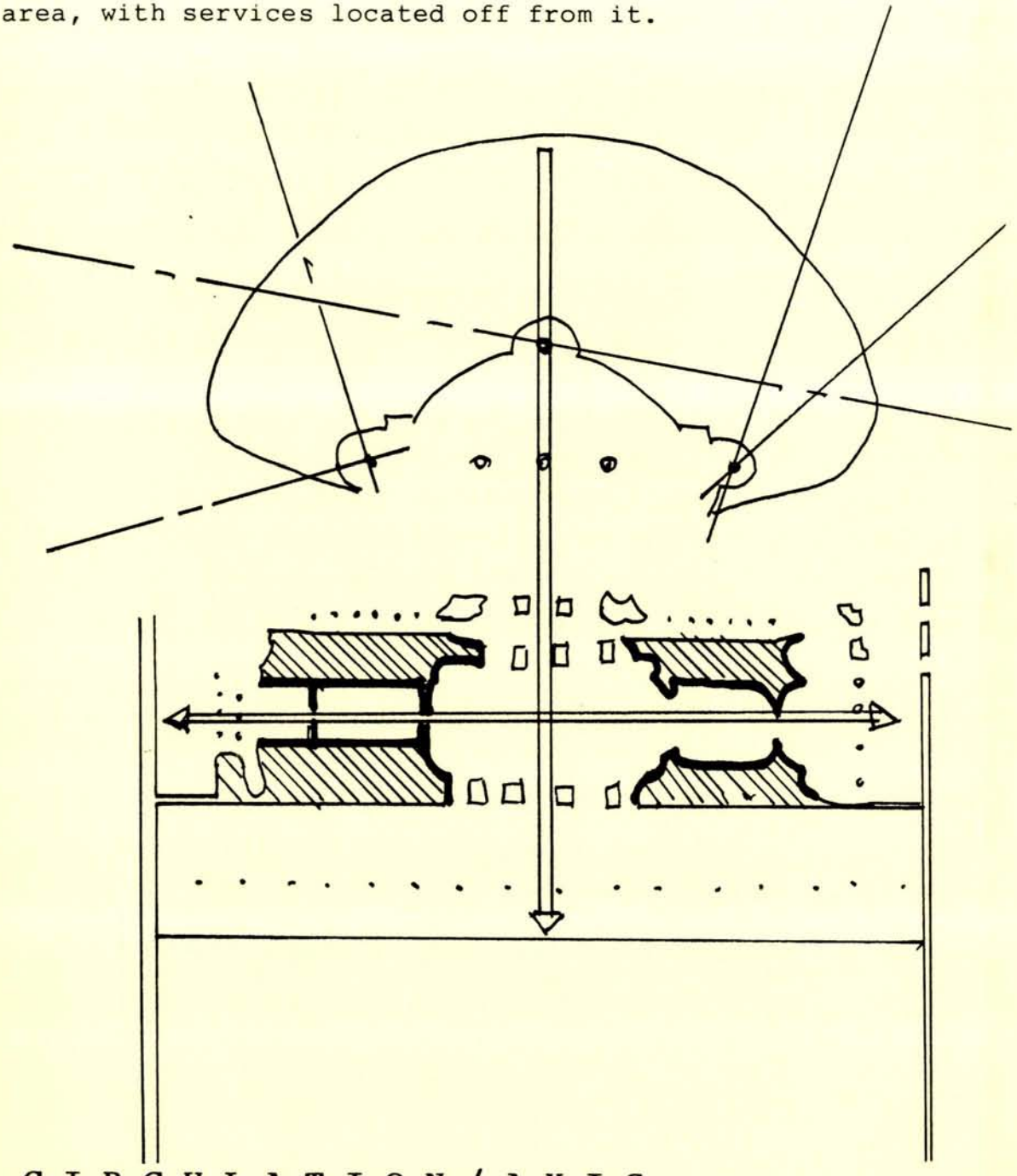
CIRCULATION / AXIS



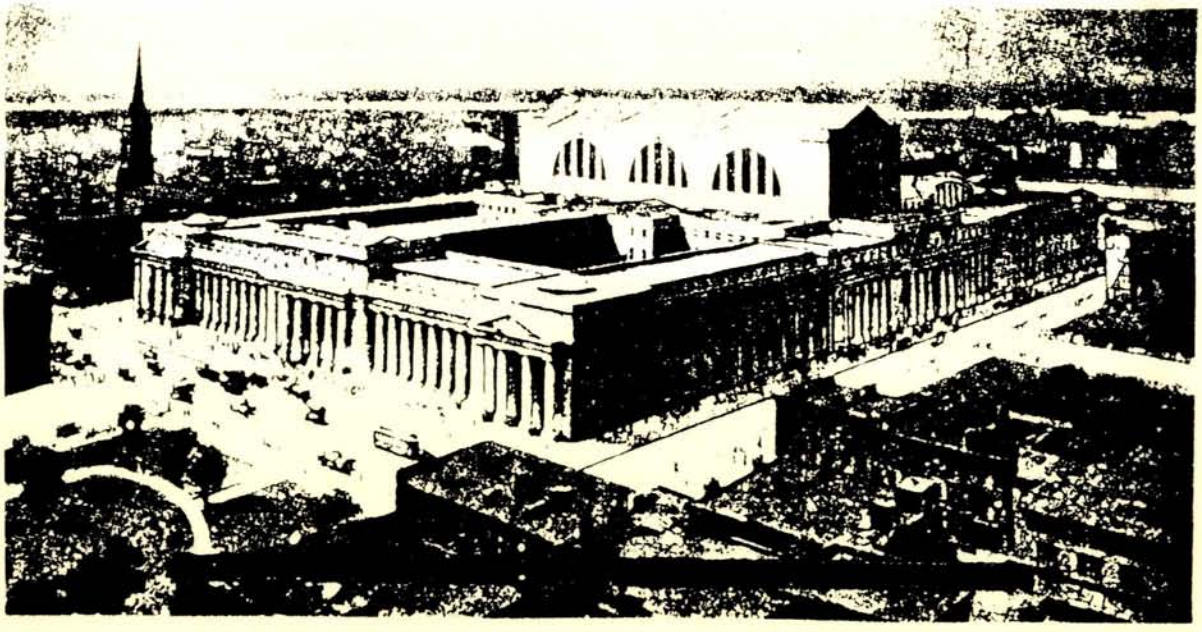


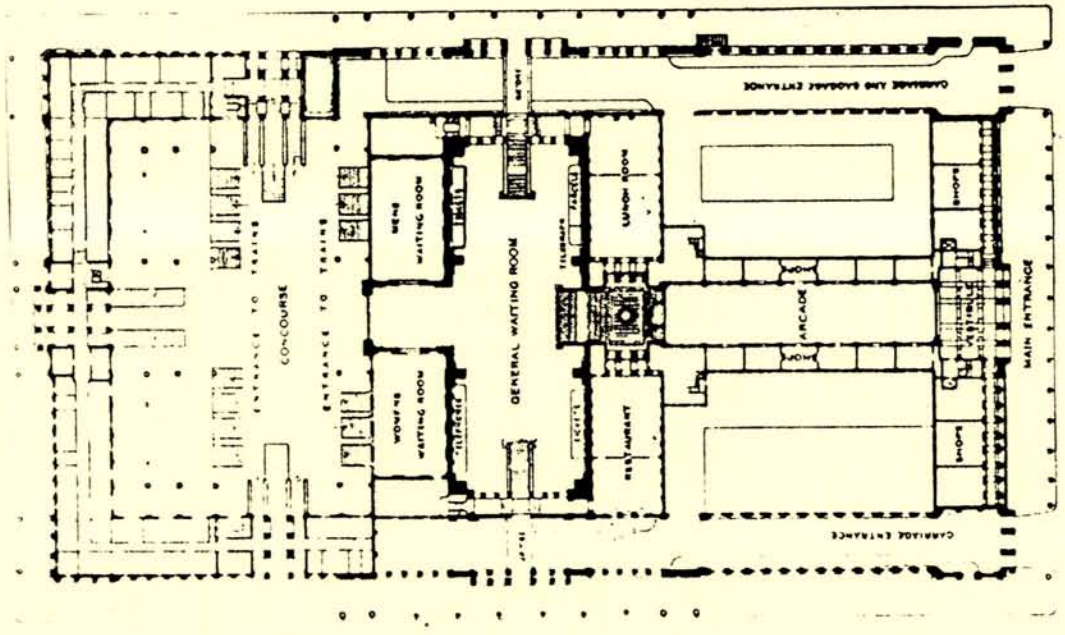
D. C. UNION STATION 1903

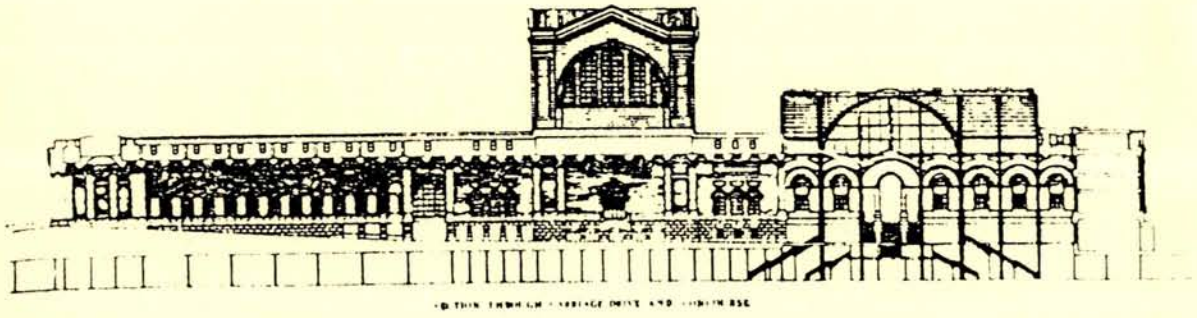
The transition from the 19th century to the 20th century can be followed in the Union Station in Washington D.C. in 1903. Axial relationships between the street and the station create a sense of hierarchy for the station. Retail shops also help add to this stations importance. There is a large main waiting area, with services located off from it.



C I R C U L A T I O N / A X I S

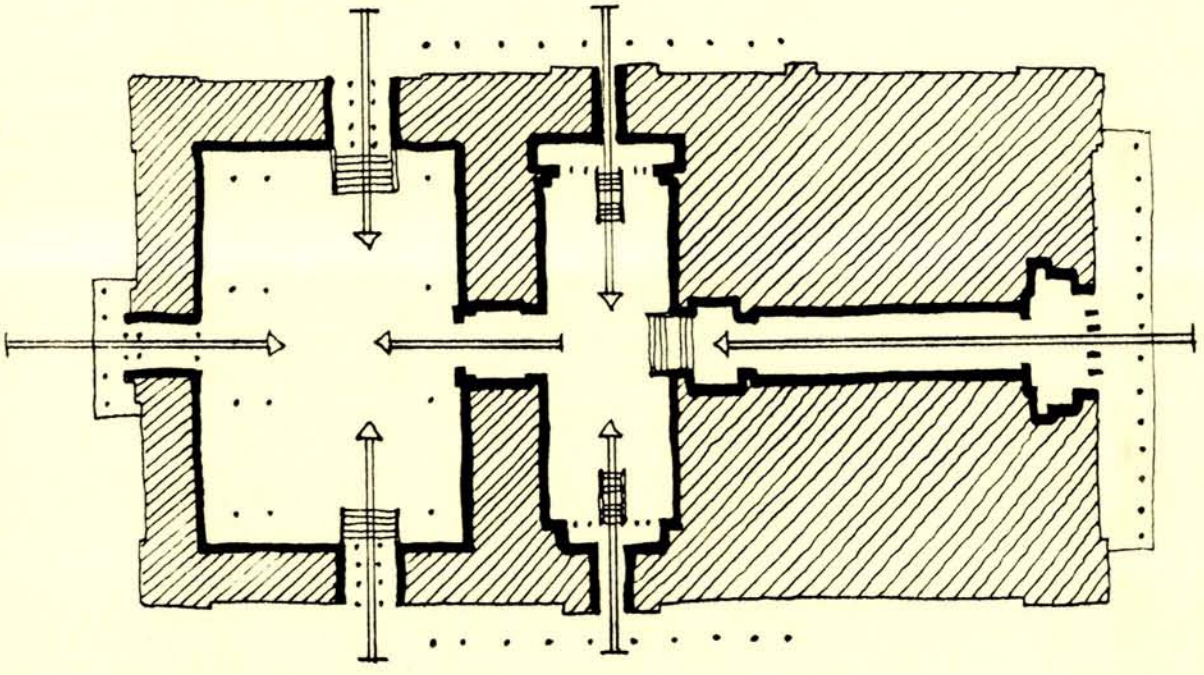


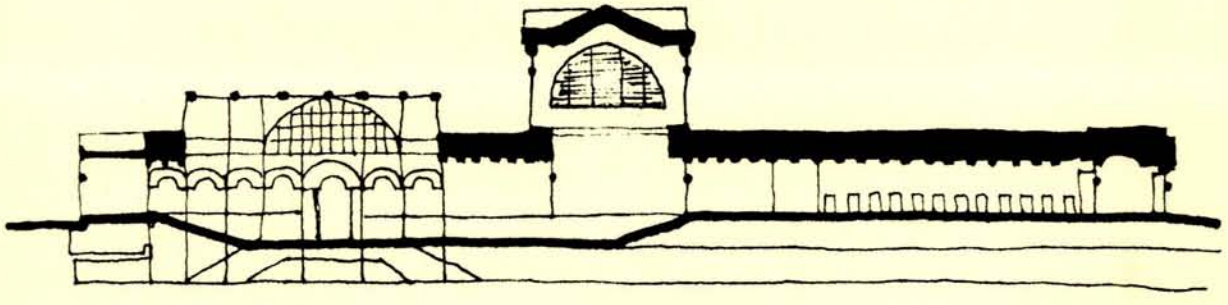




PENNSYLVANIA STATION 1906

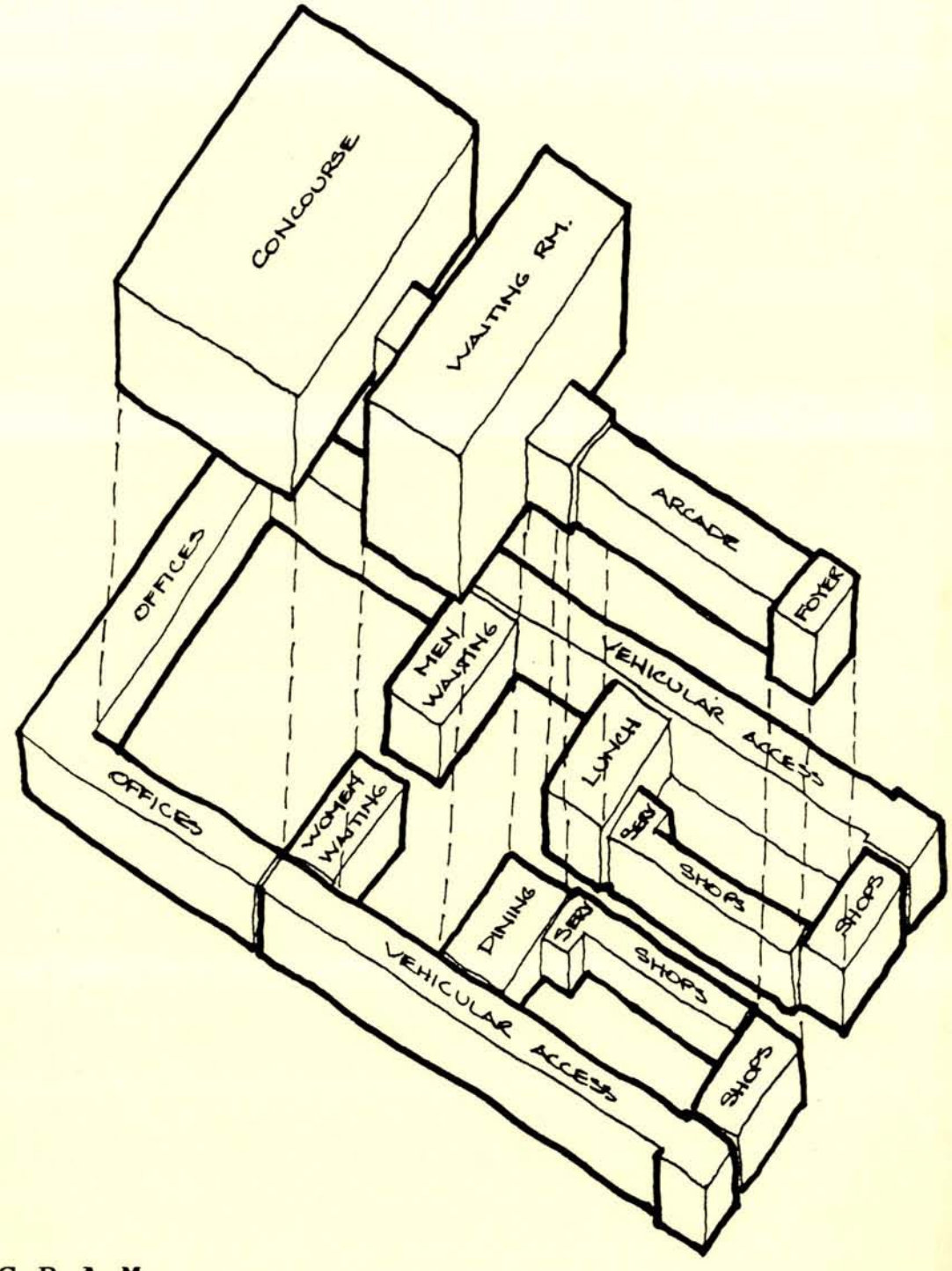
Pennsylvania Station, by McKim, Mead, and White, was built in New York City in 1906. The layout is extremely functional. Passengers can enter and exit from all sides or make direct underground connections to the subway. The building covers over two city blocks in Manhattan. Spaces are carved out of the mass, with the major spaces (waiting room and concourse) one level below grade. This provides for vehicular access and entrance to the subway. It also creates a promenade to the waiting room, concourse, and finally to the trains.

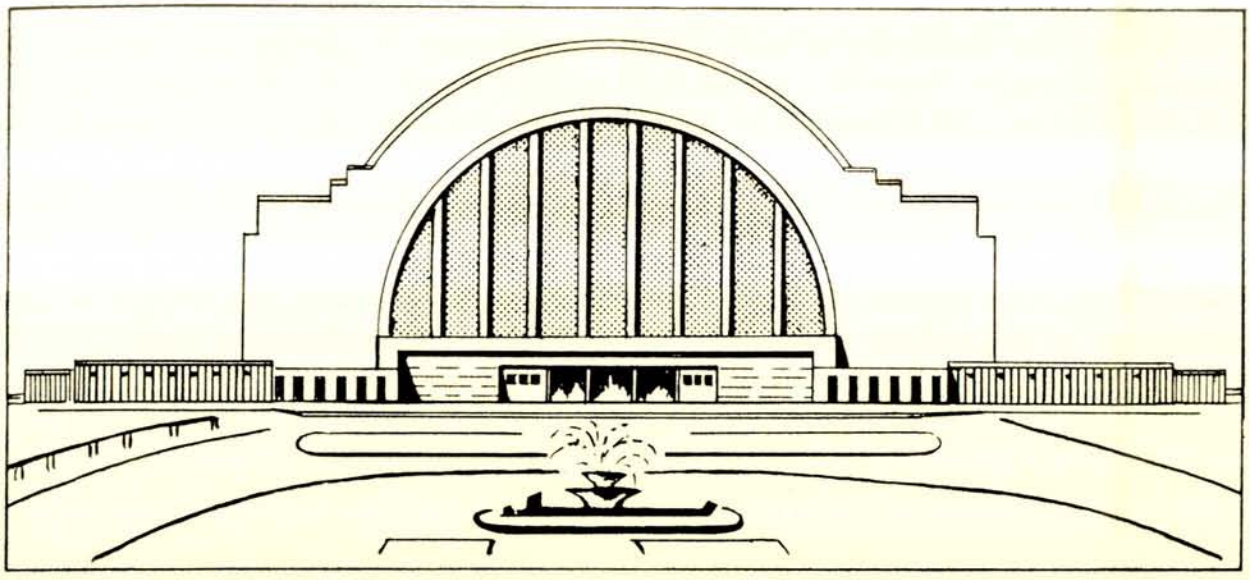


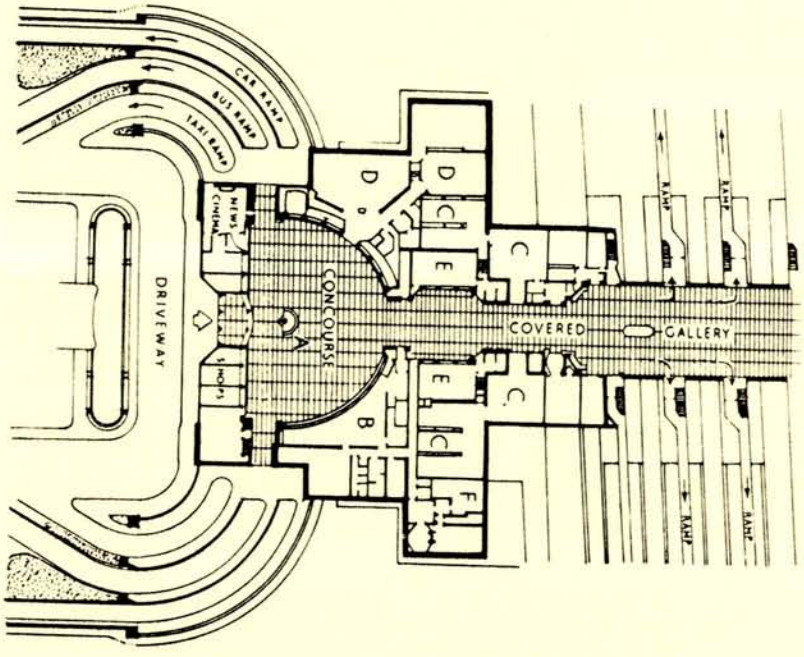


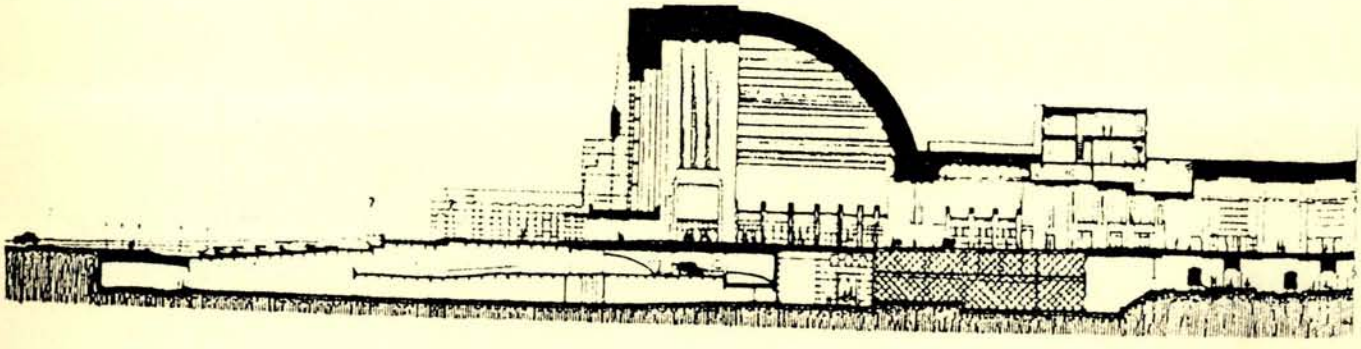
C I R C U L A T I O N

The waiting room and the concourse are actually separate spaces. The shops are not located off the main space, but along the spine of the arcade. The offices, shops, and vehicular access act as a wrapper around the major spaces, which rise above this base.



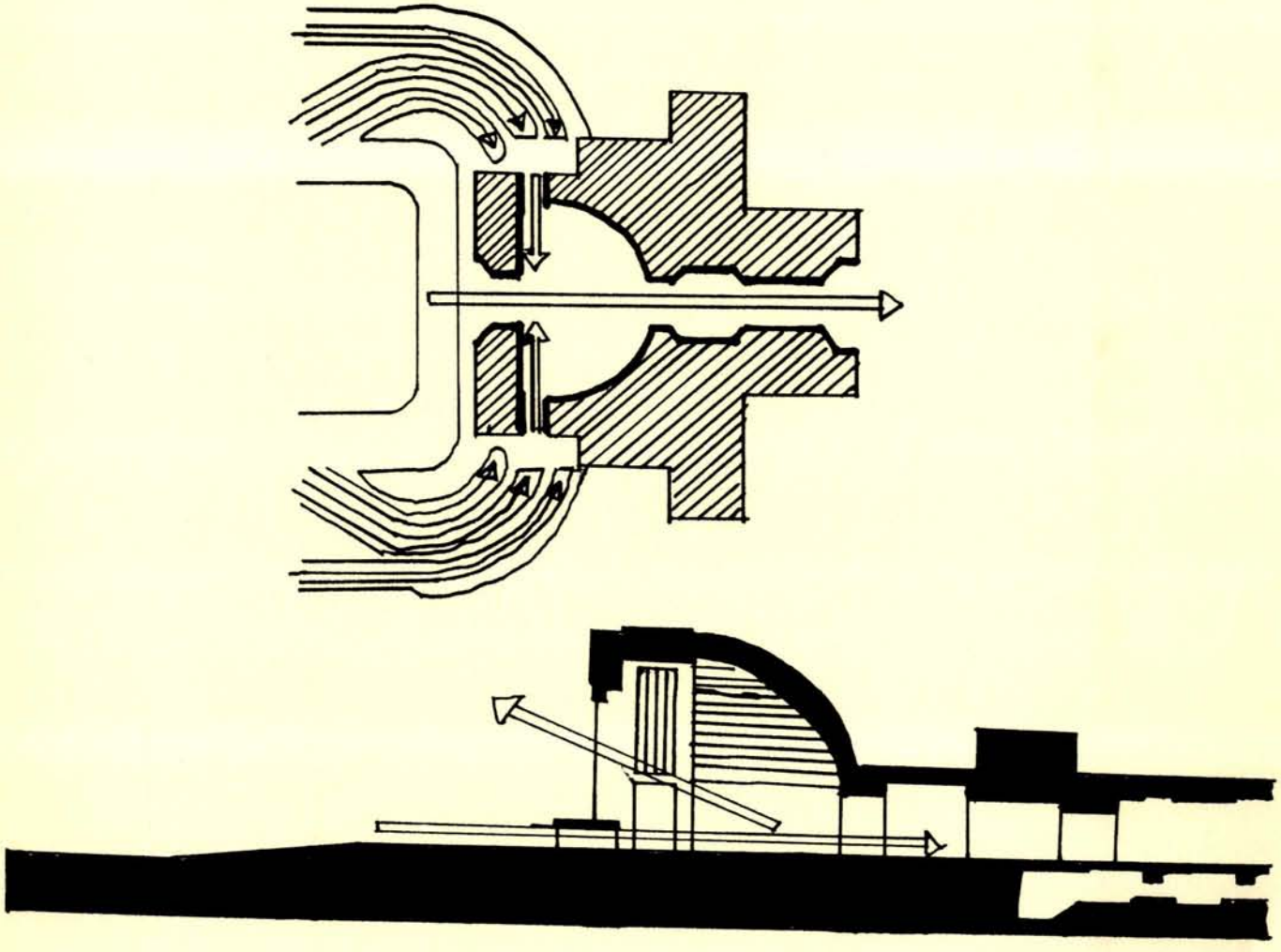






CINCINNATI UNION STATION 1929

Union Station in Cincinnati was designed by the firm Fellheimer and Wagner in 1920. Circulation was a major consideration in this station. Passengers enter the semi-circular concourse at grade level. Vehicular access is located within the two arms expanding from the stations main waiting area. They lead down to the lower level. The large semi-circular space is re-enforced in the section. The sequence is manipulated through a filter-like entry, which becomes a series of parallel walls. This articulation screens off shops and private office spaces.



C I R C U L A T I O N / S P A C E

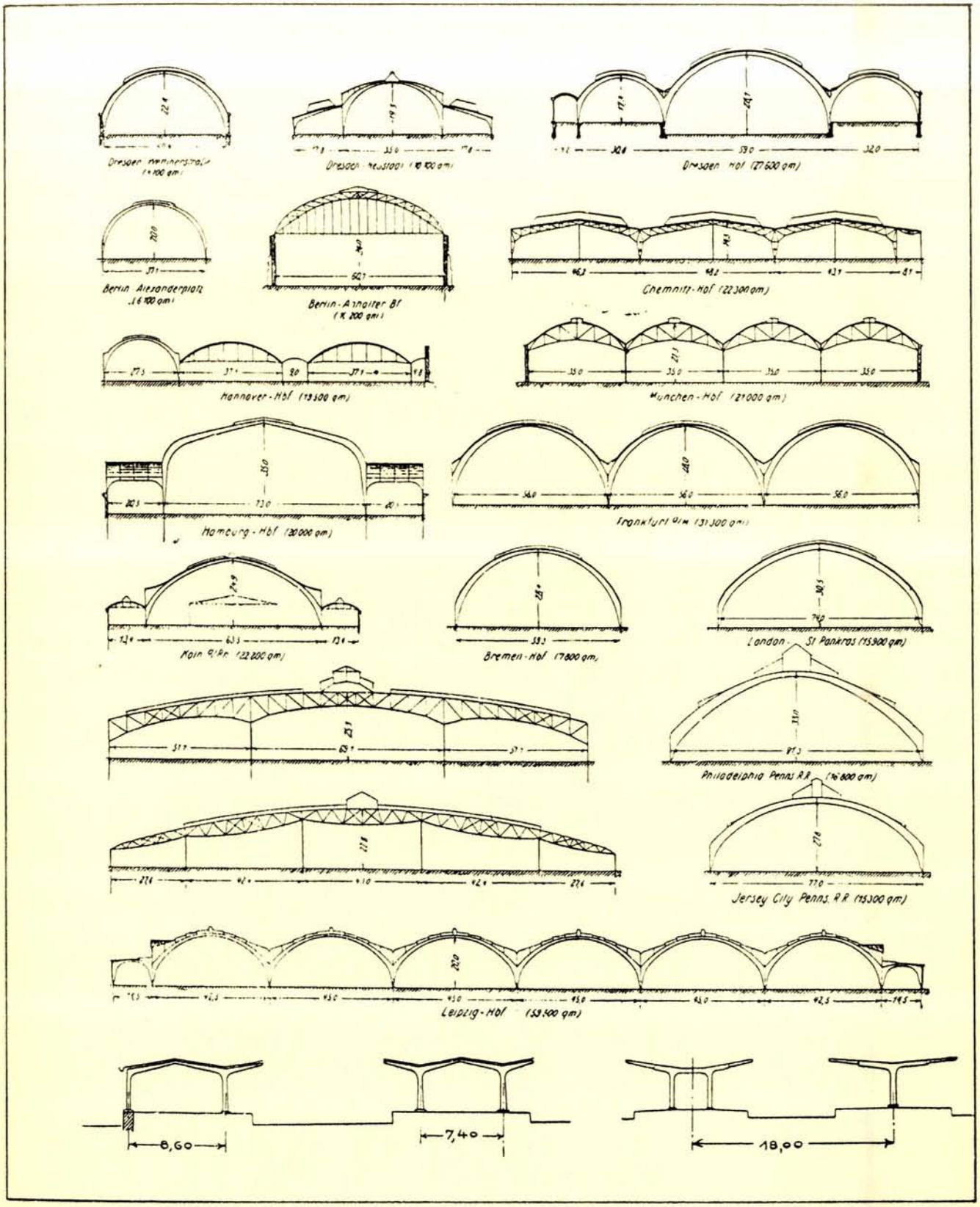
THE TRAIN SHED IN RAILROAD HISTORY

The train shed is an architectural form which began at Crown Street Station, Liverpool, in 1830 and ended with the invention of the smoke slot in 1904, a less extravagant (and less elegant) way to shelter passengers at a station. It is a form that lent itself to the design of some very dramatic aesthetic effects as well as playing a very important role in the development of new materials and techniques by the engineers of the nineteenth century.

Two materials were used for the construction of train sheds. First wood was used with spans of 100 feet being common by 1846. In 1837 a shed was designed that covered an area of 74 by 240 feet in three spans. Wood was abandoned for steel construction because of its more durable qualities and longer span range. Steel construction took many forms using many different types of trusses. Typical spans were 150 feet with the longest being at the Broad Street Station in Philadelphia, 1891-1893, with a span of 300 feet.

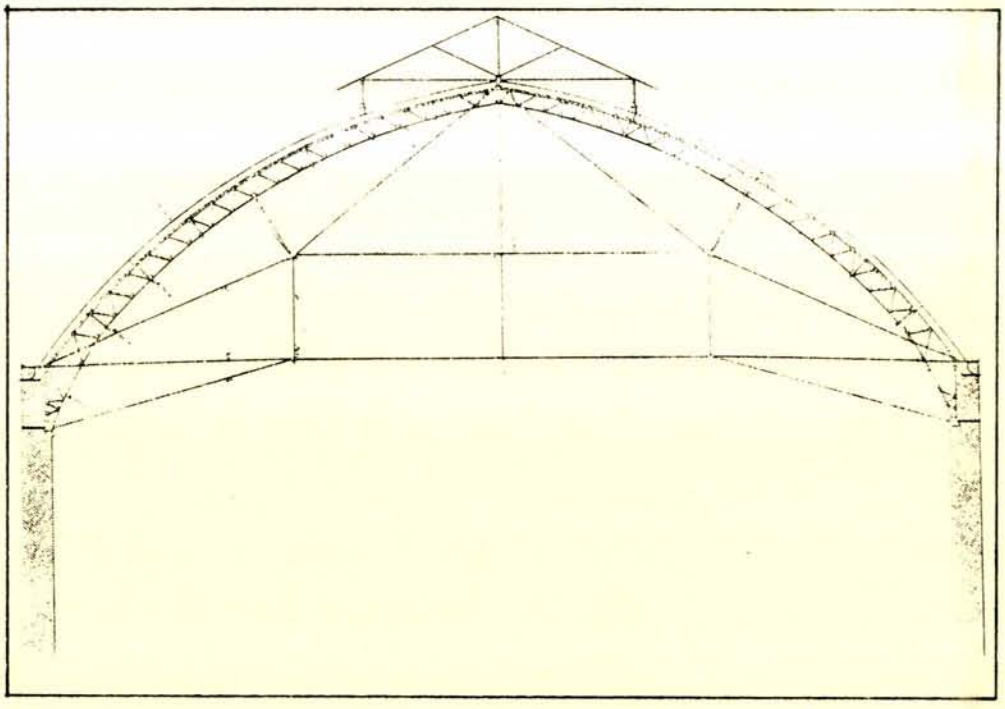
These sheds were most often used on stub end stations where the trains terminated. Most often they were designed by an engineer, not an architect, and were not integrated into the design of the exterior of the station. It is an interesting contrast to see masonry terminal buildings juxtaposed against the light and airy structure of the train shed.

The above dates were taken from Carroll L.V. Meeks, "The Life of a Form: A History of the Train Shed." Architectural Review, September, 1951, Page 162.

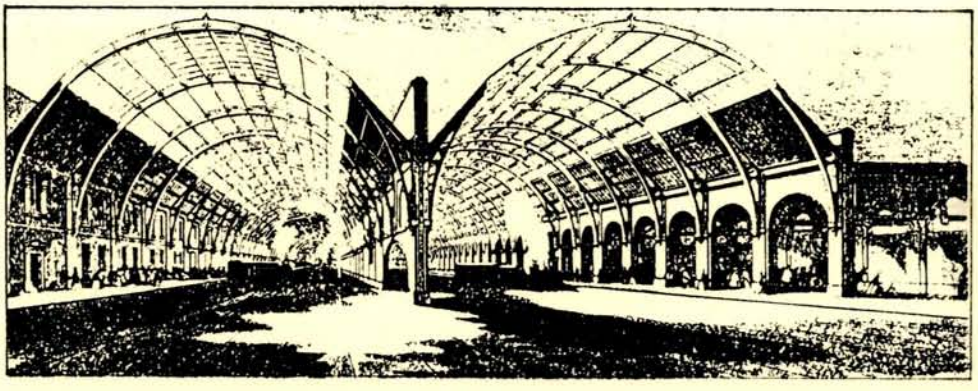


TRAIN-SHED SECTIONS

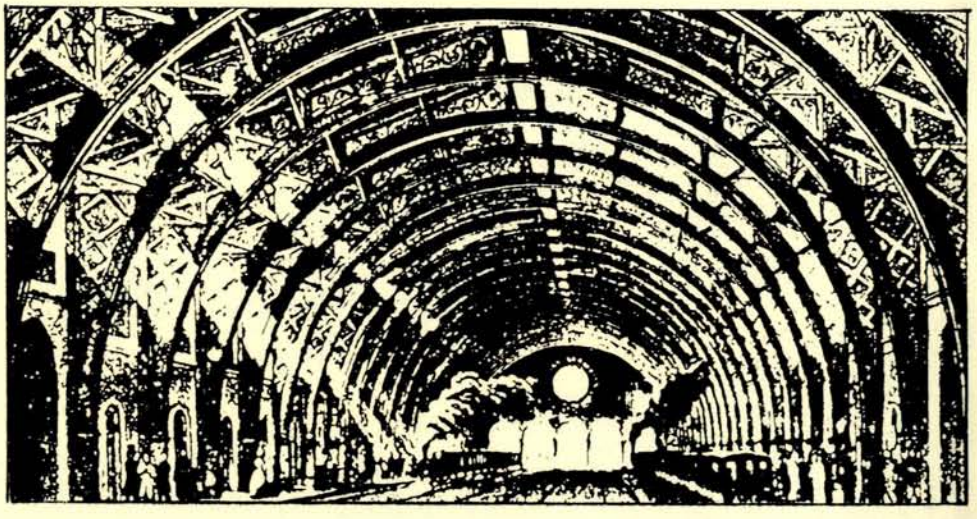
Paris, Gare de l'Est. Section of train-shed, tied arch.



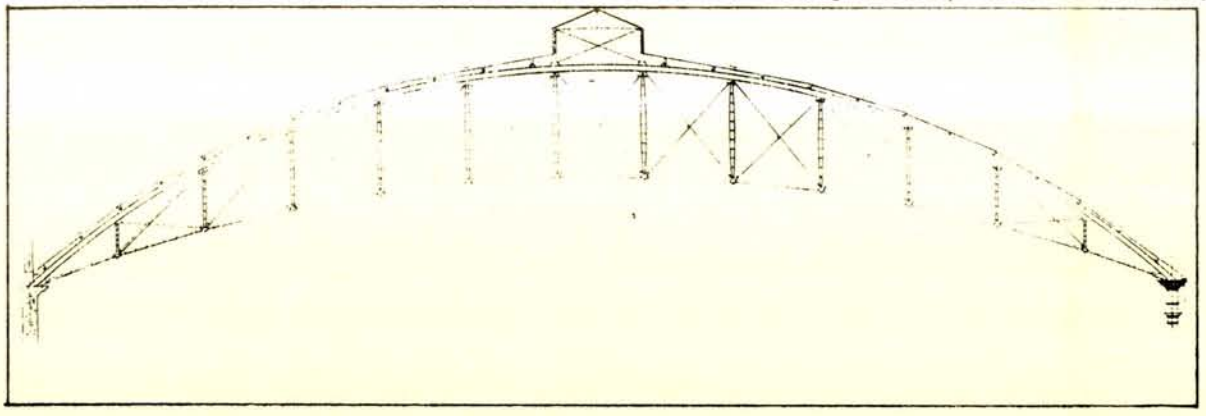
London, King's Cross Station. Interior of shed.



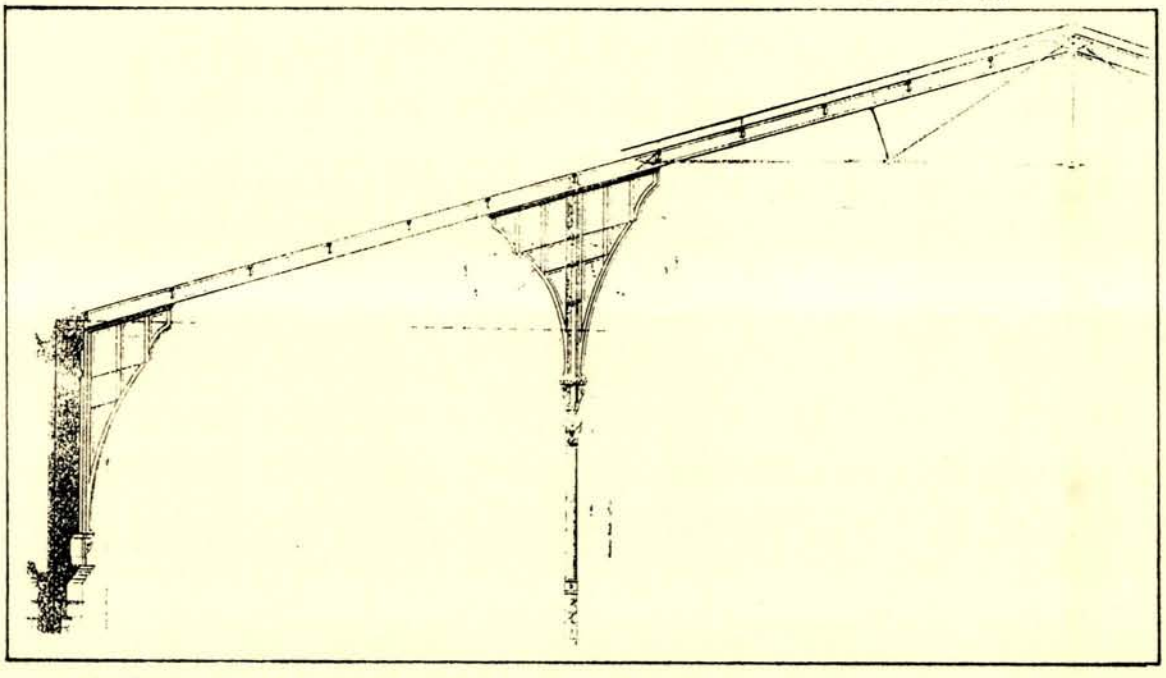
Munich, Hauptbahnhof. by Fredrich Burklein, 1847-49.



Birmingham, Warwickshire, New Street Station. E.A. Cowper, engineer, 1854. Truss.

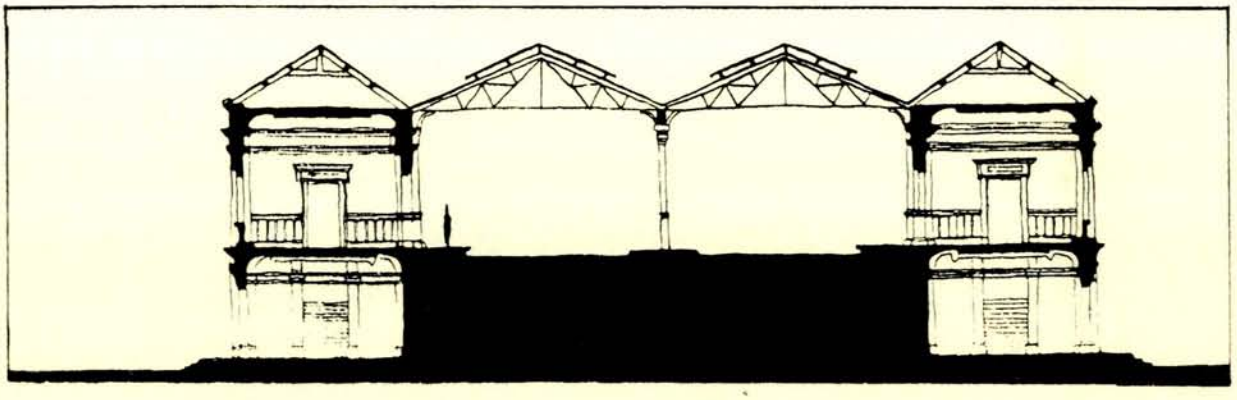


Paris, Second Gare du Nord. Half section of shed.

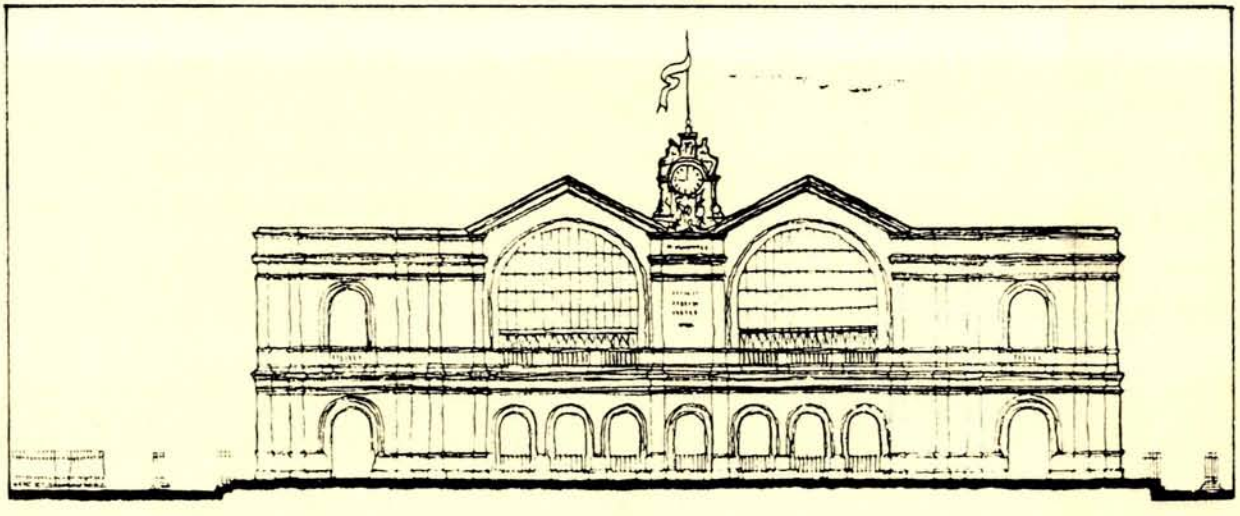


London, Paddington Station II. Interior of train-sheds

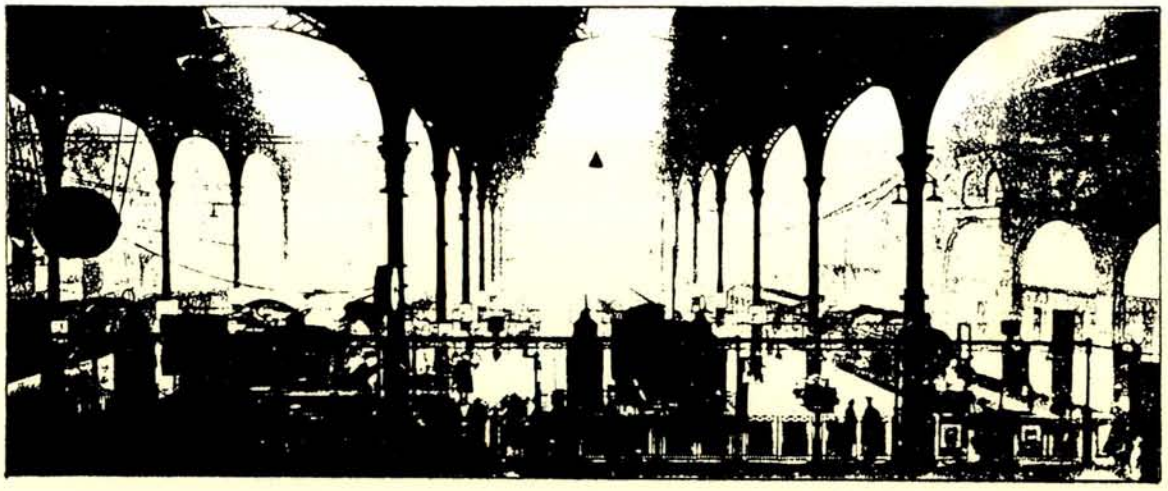
Paris, Gare Montparnasse. Victor Lenoir, architect, and Eugene Flachat, engineer, 1850-52. Section of original sheds.



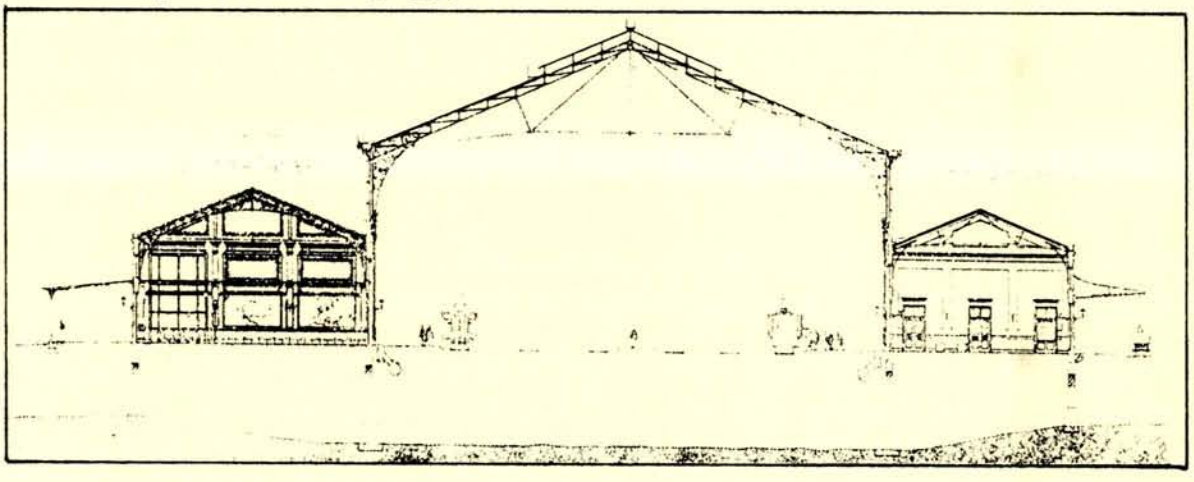
Paris, Gare Monparnasse. Victor Lenoir, architect, and Eugene Flachat, engineer, 1850-52. Elevation.



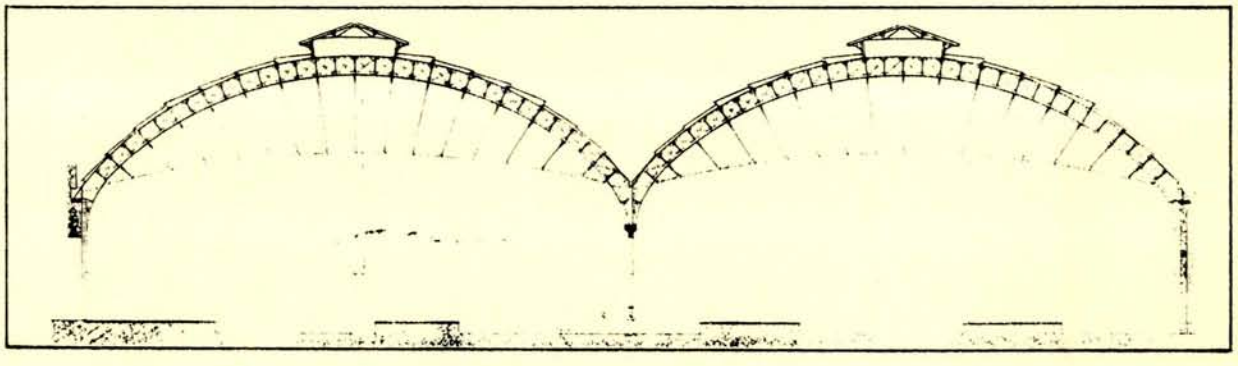
London, Liverpool Street Station. By Edward Wilson, 1874-75. Interior of train-shed.



Budapest, West Bahnhof, 1873-77. Section showing train-shed by Eiffel and Co.

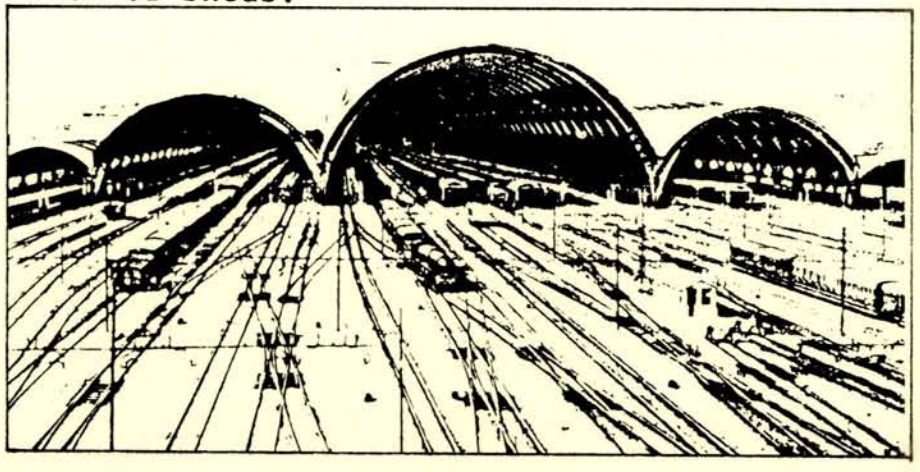


London, Victoria Station. Robert J. Hood, engineer, 1859-66. Sections through train-shed, tied arch.

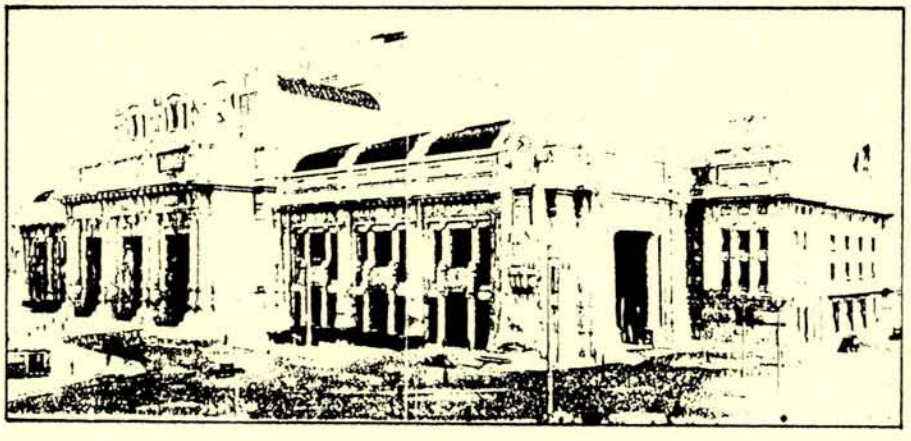


Milan, Stazione Centrale. By Ulisse Stacchini, 1913-1930.
Competition design of 1913.

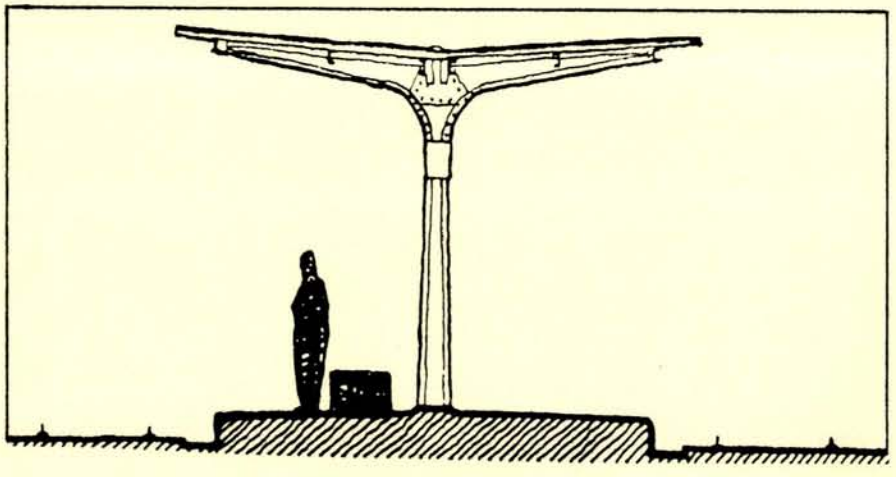
Milan, Stazione Centrale. By Ulisse Stacchini, 1913-30.
View of Sheds.



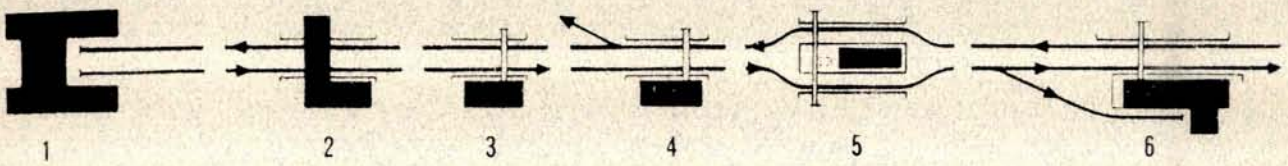
Milan, Stazione Centrale. By Ulisse Stacchini, 1913-30.
General View.



Butterfly shed. Designed by the New Haven Railroad.



Various types of station buildings in relation to tracks:



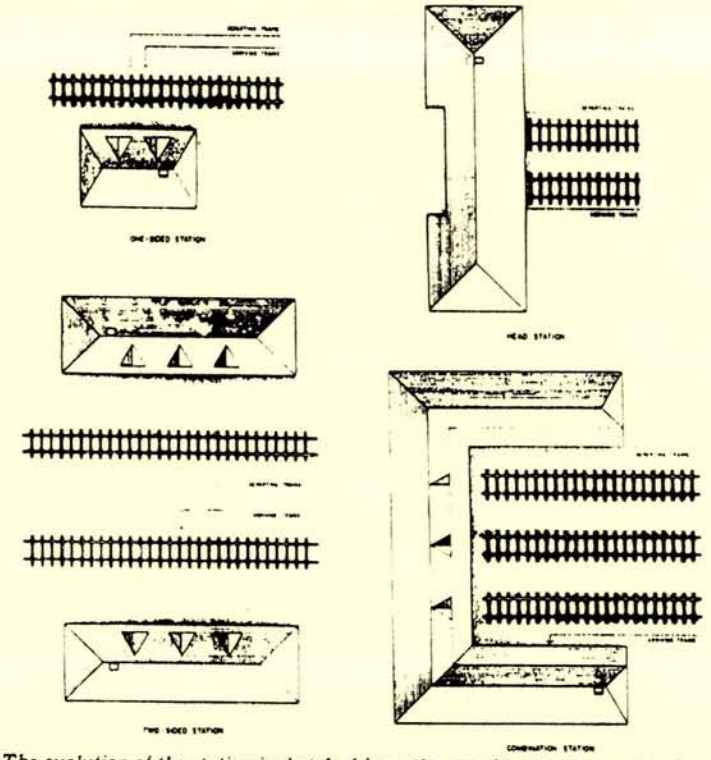
1 *Main-line terminal*
2 *Route station spanning tracks*
3 *Route lineside station*
4 *Route lineside station with branch*
5 *Route station on island platform*
6 *Combined route lineside branch terminal*

TRACK ARRANGEMENT

PRECEDENTS

TRACK ARRANGEMENT

As the train station has evolved through time, several general plan types have developed. The primary issue behind many of these types is site. A railroad station affects surrounding streets, public places, parking areas, mercantile districts, and residential neighborhoods directly and conversely it is directly affected by all the pressures of its site and the community which it serves. When it has been determined that the station will fulfill its role as an appropriate civic building for a community, selection of the types of track and station arrangement must be made to fit the conditions imposed by the site and its surroundings.

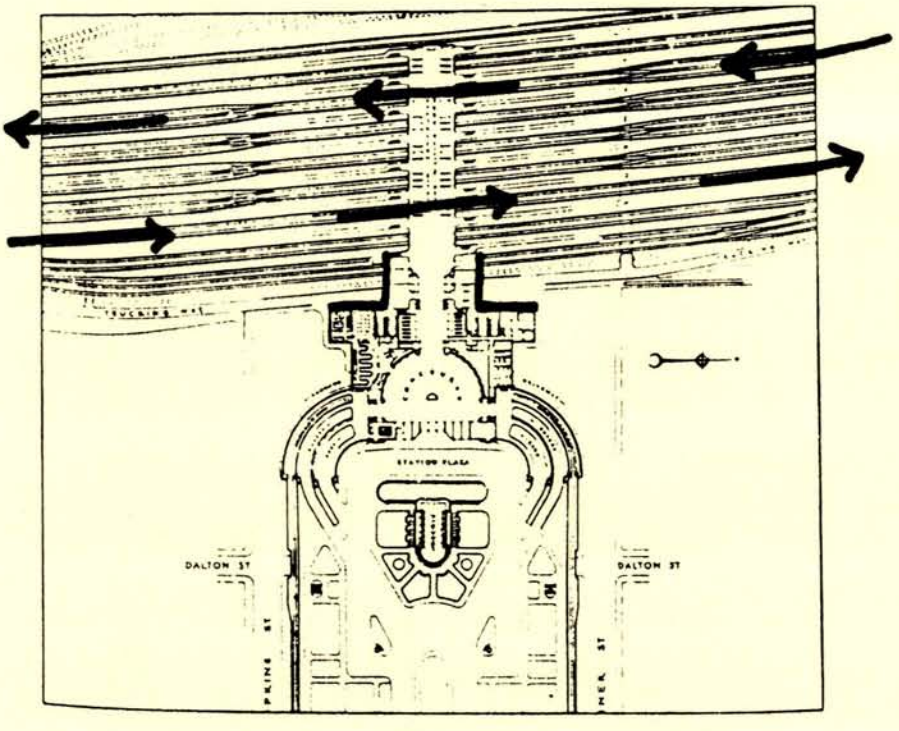


The evolution of the station is sketched from the one-sided to the combination. The earliest and simple one-sided form is most commonly found today in suburban and country locations; the two-sided, of course, allowed for increased traffic and safety. The head station form was introduced in the mid-nineteenth century and became the predominant one for town and city terminals and depots. Expanded with side wings as a combination freight and passenger station the head form provided the American metropolis with an imposing, if not monumental, public building.
Pamela Chang, HABS, 1975.

TWO TYPES OF TRACK ARRANGEMENT

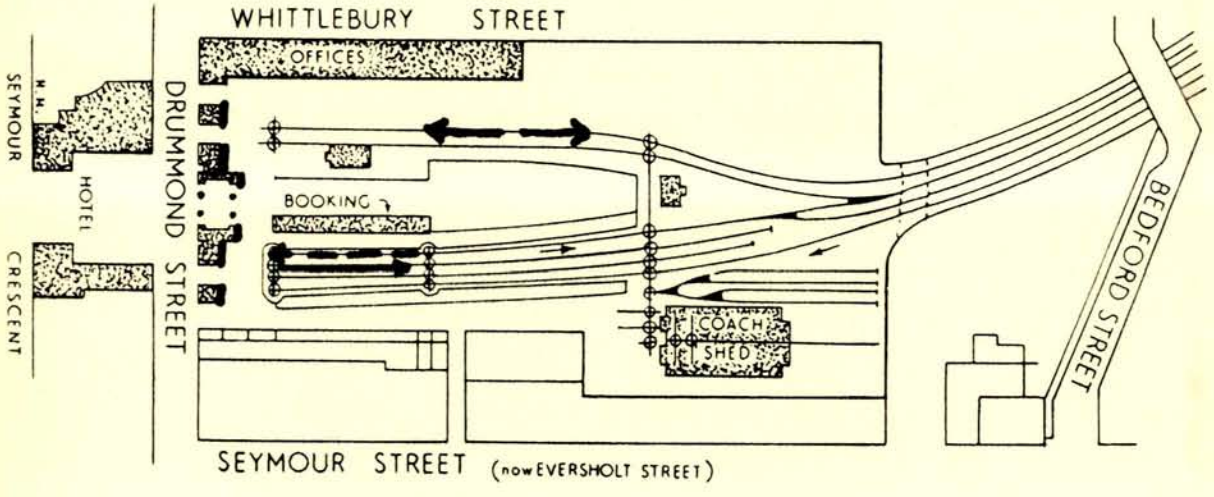
THROUGH TYPE: The track and other facilities provide for the operation of trains, through or past the station, without reversing the direction of movement. This type is the best for rapid and efficient handling of trains.

Union Passenger Terminal
Cincinnati
Fellheimer and Wagner



STUB TYPE: All tracks terminate here and the trains are operated to and from the station by reversing the direction of motion.

Euston Station 1838
Philip Hardwick

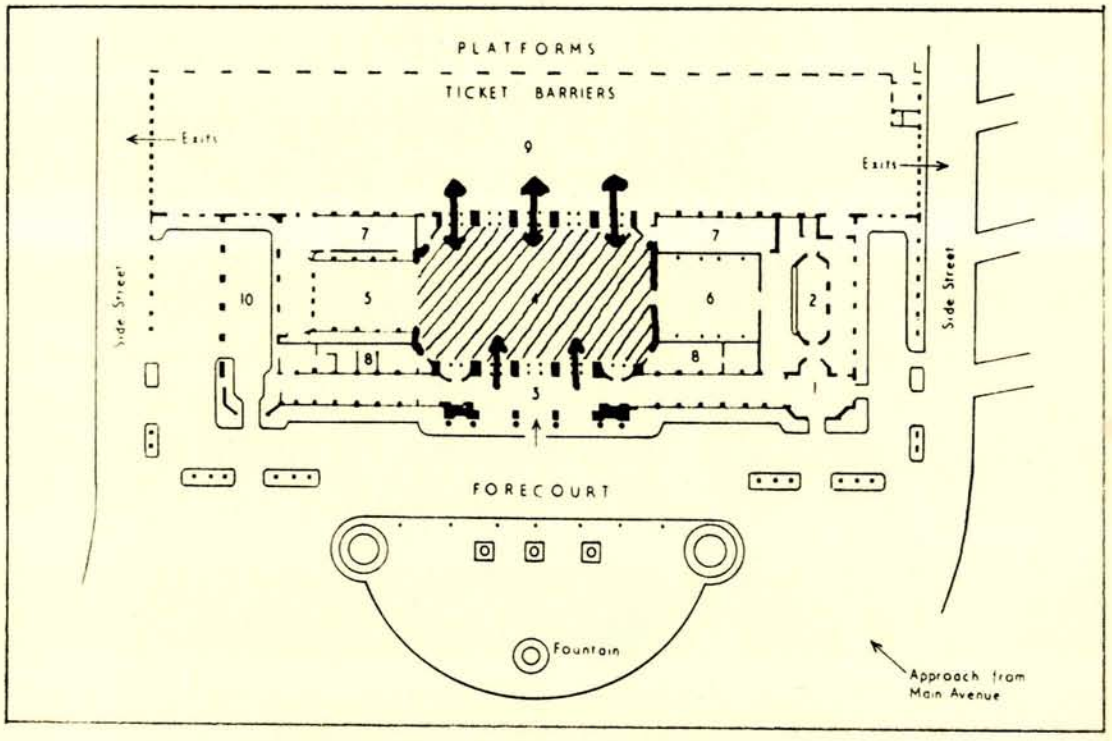


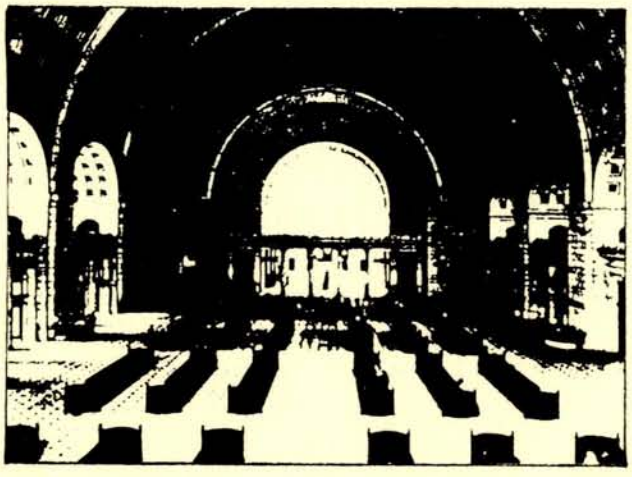
The through type is the better type, but the stub type can be given some of the advantages of the through type by providing for the release of the engine after arrival, or if possible, a loop arrangement.

S T A T I O N A R R A N G E M E N T

WAITING ROOM TYPE: The waiting room is the focal point of the station. The ticket office, baggage claim, etc. open directly off of this space. There is a separate concourse for access to the platforms.

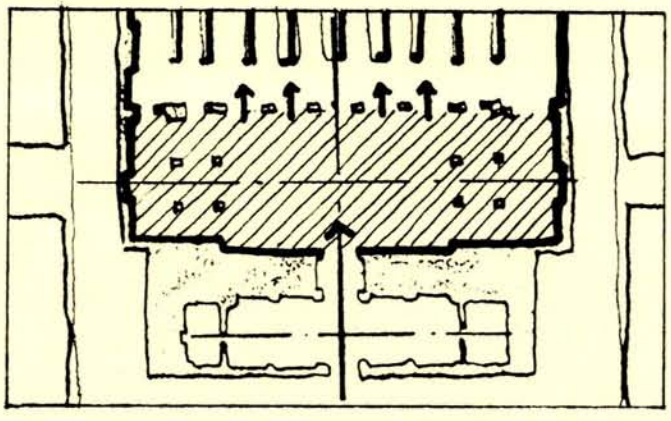
Washington Union Station 1903-1907
D. Burnham and Co.





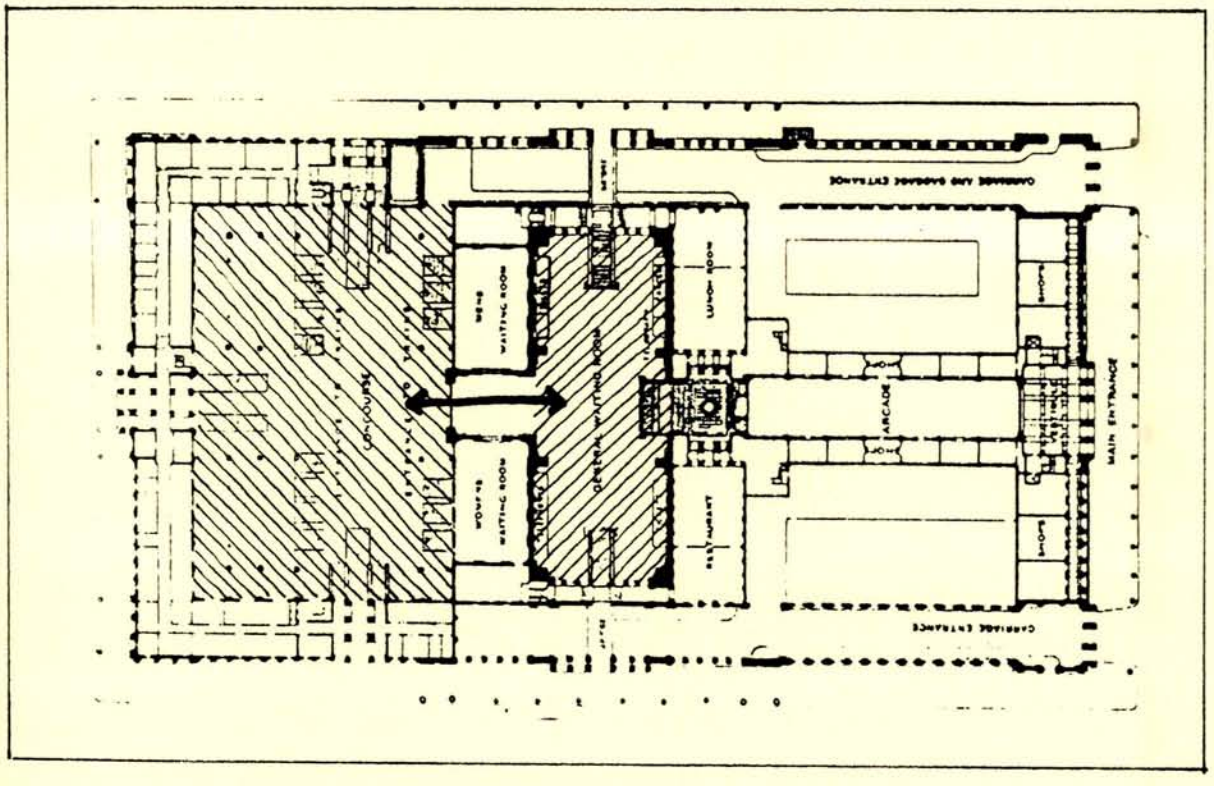
CONCOURSE TYPE: The large general passenger concourse is provided for mass circulation. The ticket office, baggage, etc. open directly off of this space. The waiting room and passenger comforts are adjacent but separate from the concourse.

Grand Central Station
New York City



COMPOSITE TYPE: A large room is provided for ticket sales, baggage, etc. The waiting room and the passenger concourse are both separate.

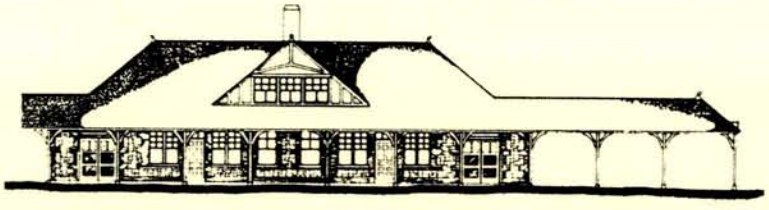
Pennsylvania Station
New York City
McKim, Mead, and White



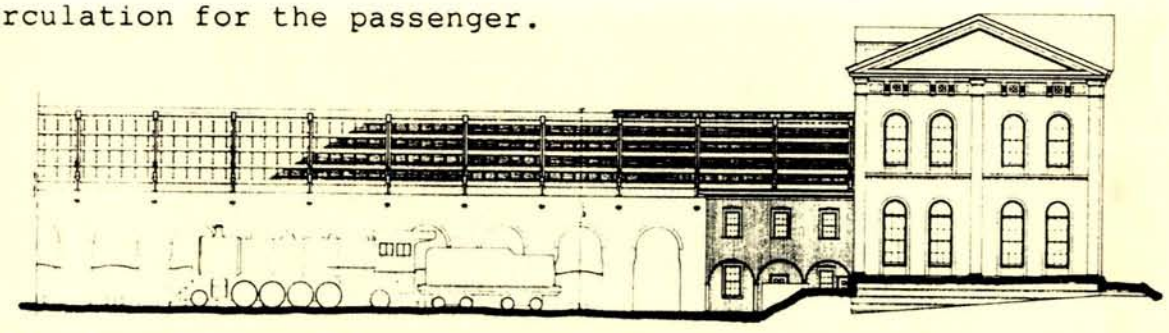
These types are influenced by the topography of the site. One is not functionally better than the other, except in conjunction with specific site requirements.

L E V E L A R R A N G E M E N T

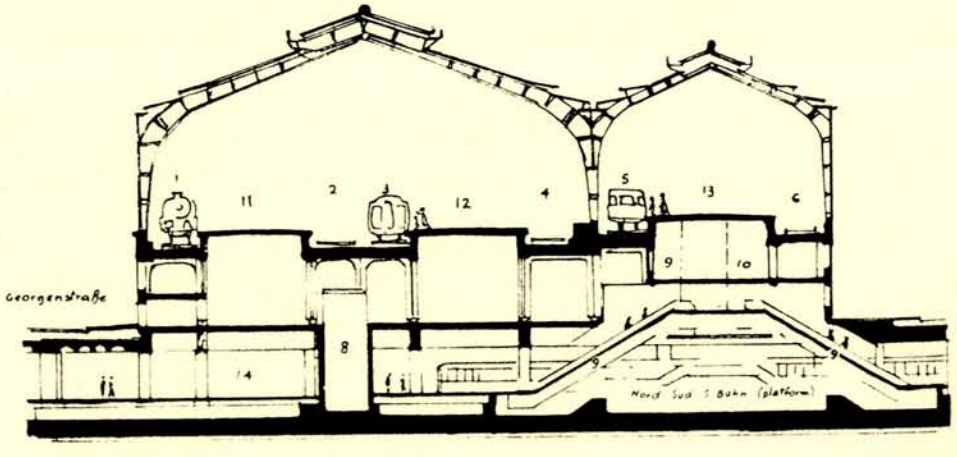
SINGLE LEVEL: The tracks and the street are essentially at the same level. This is a great advantage in a stub type, but not at all in the through type station.



DOUBLE LEVEL: The tracks are above or below the street and main station level. This is generally the best arrangement for a modern large passenger terminal. With the tracks located below the street and station level, there is less vertical circulation for the passenger.

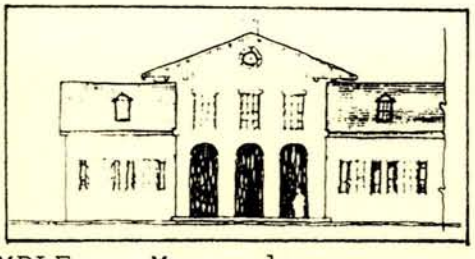


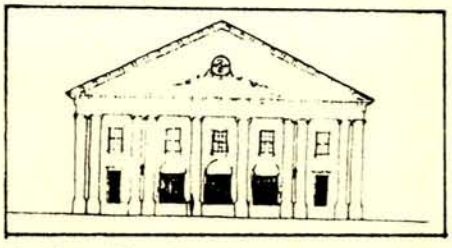
MULTI LEVEL: The station, streets, and tracks are at different levels. This is possible if there are two track levels, or two street levels, making three or more levels in all, depending on grades, etc.



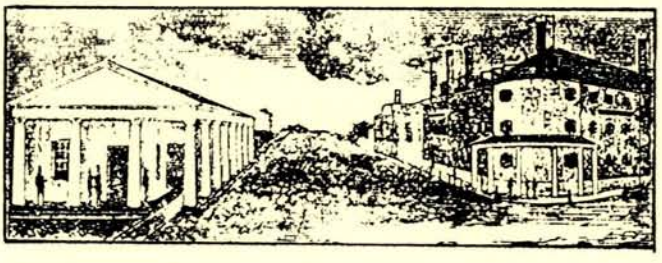
CHARACTER OF STATIONS

DOMESTIC: These stations were domestic and vernacular in character. Only the belfries and clock towers distinguished them from the rest of the buildings in the area.

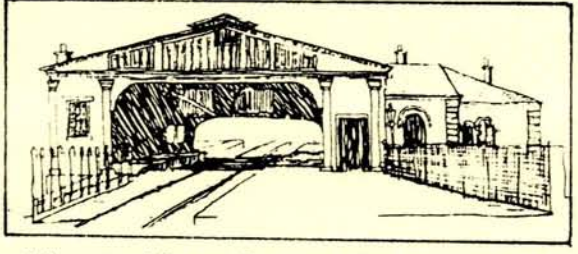




TEMPLE: Many larger companies modeled their stations after small Greek temples. The tracks would run through one side of the building, under one gallery of the peristyle. The rest of the building was services, such as waiting rooms, and ticket offices.



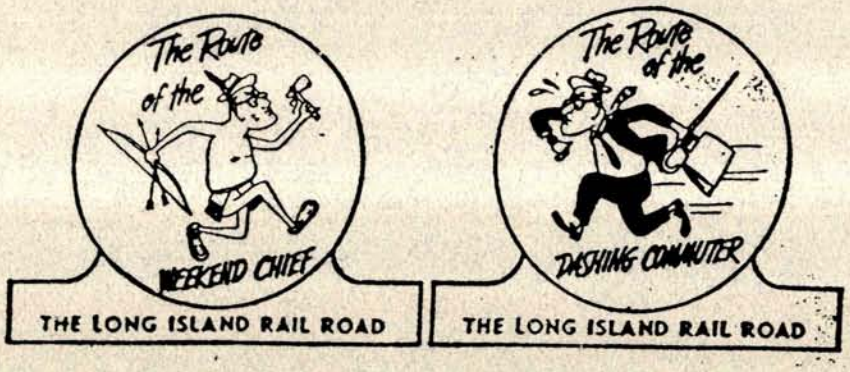
TRAIN-BARN: These stations were almost indistinguishable from large farm barns. The trains went through large doorways in the center. Many actually had doors, but usually they were demolished by impatient engineers.

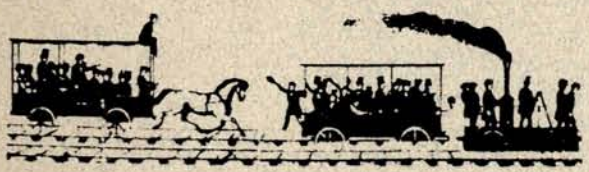


12. Meeks, Carroll Railroad Station; An Architectural History. (Yale University Press, New Haven, 1956)

Averages and statistics from other terminals are helpful, yet each facility must still be tested by local requirements. It is important to remember these types are general examples and should be further analyzed in the context in which they are be used. Remember the design should provide for normal, frequently recurring peaks of anticipated traffic. Also, auxiliary operating facilities, such as signaling, central plants, sub-stations, and equipment, can be entirely separate, but must remain accessible from the station facilities. Finally, the opportunity to provide for commercial office and retail space exists in most cases and should be used, perhaps to obtain the usually desired monumental effect.

The above information was taken from Alfred Fellheimer, "Modern Railway Passenger Terminals." The Architectural Forum, 1930.





INFORMATION ABOUT

MONTAUK

H I S T O R Y O F M O N T A U K

"Montauk is a very special place...a place of personalities. Here on the easternmost tip of Long Island is a retreat where sea and bay blend; where fishing fleets, yachts and sailboats ride the tides. Here in Montauk, people come for the day, for the summer, for a lifetime."

Montauk, the 'beginning' of Long Island is only 125 miles from New York, its northern coastline fronts on Block Island Sound, the southern coastline on the Atlantic Ocean. Montauk contains about 9,000 acres and is part of the Town of Easthampton. The name Montauk is from the Montaukett Indians, said to mean 'Hilly Country'. It is three hours from Manhattan by train and two and one half hours by car. Commuter air service to Montauk and Easthampton are available in season.

Through carbon dating of artifacts it is known that Indians have lived on Long Island for over 4,500 years. Although there is little written history on the Indians who lived in Montauk, we do know that they were a peaceful tribe who existed for the most part on farming and the abundant game that still exists, due to the protection of acres of parkland.

The first white settler to set foot on Montauk was a Dutch explorer Adrian Block who had sailed east on Long Island Sound, rounded Orient Point and landed at 'Visscher's Hook', now known as Montauk Point. The first white man to settle in the area was Lord Gardiner who moved across the sound from Connecticut to take possession of his land granted by the King. It is the only land grant left in this country and has remained in the Gardiner family since 1639. Lord Gardiner became friends with the Montauk Indians and was a blood-brother with the first known chief, Wyandanch.

Old Montauk Highway was laid out in the 1700's by Hampton ranchers involved in grazing horses, sheep, and cattle on the Montauk peninsula. Montauk has the distinction of being the first cattle ranch in the United States. With the herding of cattle there, housing had to be built... in the 1740's First House was built near Hither Hills Park. First House burned down in 1917, Second House is now a Museum and Third House is the headquarters for the State Park. Teddy Roosevelt and his 'Rough Riders' stayed at Third House when he returned from the Spanish American War. 25,000 of his troops, victims of yellow fever recuperated at Montauk.

The Proprietors, then Arthur Benson followed by Austin Corbin and finally Carl Fisher were the major buyers of Montauk land. Arthur Benson bought all of Montauk for $151,000 in 1879, the Stanford White homes built in 1882, are his contribution, as well as beach land on Old Montauk Highway. Austin Corbin brought the Railroad from Sag Harbor to Montauk and talked of making Montauk the Port of Entry from overseas, and the first big Inn was built where the Manor now stands, all in 1895. Carl Fisher, the developer of Miami Beach, the Indianapolis Speedway, the first major highway across the country and the Dixie Highway wanted Montauk to become the Miami of the North. He laid out the town, built the golf course, the polo field, the Manor, the tall office building in town, indoor tennis courts, and the theater. He also opened the jetty into Lake Montauk, the Lake soon became salt water. Carl's dream collapsed with the Stock Market crash in 1929, but not before he accomplished a great deal of his plans.[13]

Montauk is one of the world's best oceanside vacation areas, each year its facilities are being expanded to provide more year 'round activities. There is superb hiking and riding over miles of trails and shifting sand dunes, picnicing in State

Parks, power or sailboating, fishing, summer theatre, water skiing, surfing and beachcombing. There are two large oceanside state parks, Hither Hills for camping, ocean bathing and for picnics: Montauk Downs State Park, for trails and horseback riding, extending to the Lighthouse.

Being surrounded by water and fairly close to the Gulf Stream has a great influence on the temperature in Montauk. Generally the area is 10 degrees cooler in summer than New York City, and 10 degrees warmer in winter. The year round population is about 3,000 and swells in the summer to about 19,500.

Approximately 100 people commute from Montauk to New York City daily, while the rest of the year round population maintain small shops, restaurants, and motels, that flourish during the summer months. While there are many visitors and vacationers to Montauk, most of the 'Summer People' own houses and pay taxes in the towns in which they live. The railroad provides the easiest and most efficient mode of travel for these white collar workers that just want to get out of the City.

13. Holden, Albert Montauk, (Holden's Publications, Montauk, New York, 1983) Page 4.

L. I. R. R. H I S T O R Y

The Long Island Railroad has a remarkably unrecognized history. It is the largest rail line in the United States and one of the oldest. It carries about seventy-five million passengers a year while the Pennsylvania Railroad, the second largest line, has an annual record of about sixty million passengers. The Long Island Railroad is the oldest railroad still operating under its original name and charter. Yet, through most of its long history it has suffered financial difficulties. For only a few years in its early existence, while it was carrying the bulk of the passenger business between New York City and Boston, did the railroad show a profit.

New York State Legislature chartered the L.I.R.R. and granted a franchise to build a line from Brooklyn to Greenport on April 24, 1834. Its purpose was not to provide local service, but rather to become the main link in a rail-boat-rail connection between New York and Boston. The line was opened on July 24, 1844 and was an immediate success, by 1850. However, the New York, New Haven, and Hartford route was completed four years later, creating an even faster and much more convenient all-rail journey. The very reason for the existence of the L.I.R.R. had come to an abrupt end. Its fortunes plunged and it turned to scraping up whatever local business it could find.

The tracks of the L.I.R.R. had purposely been laid right through the pine barrens in the middle of Long Island to avoid the populated areas along the north and south shores. Consequently, patrons were hard to come by. Bypassed communities began supporting competing companies that were willing to build lines along the shoreline. To beat out the competition, the L.I.R.R. built a branchline from Manorville to Eastport and

eastward to Bridgehampton in 1869, where it cut north to end at Sag Harbor.

The coming of the railroad to Long Island created an economic and social upheaval in the nineteenth century that was much greater than that caused by the automobile and the airplane in the twentieth century. Before the advent of train service, most people never traveled more than fifty miles from their birthplace. Cheap, fast rail service had ended the isolation of people, products, thought, and culture.

The L.I.R.R. also spurred the Island's tourist industry, which currently accounts for a half billion dollars in annual revenues. L.I.R.R. turned the railroad dock at Greenport into the gateway to Shelter Island, and it was no coincidence that the first hotel for tourists in the Hamptons (The Hallock House in Westhampton Beach) opened in 1869, the year the railroad arrived.

Extra-fare parlor cars have long been the hallmark of service that has set the Long Island Railroad in a class apart from most other lines. Since its early day, the L.I.R.R. has regularly conveyed to the fashionable, pristine ocean and bay beaches of the Island, holidaying New York social aristocrats willing to pay for amenities not usually affordable by commuters or day-trippers. In the late 1800's, a parlor car was standard equipment on many long-distance trains; more recently, especially on the Montauk branch, they have been used exclusively on summer weekend trains to the Hamptons. With the completion of the change over to a one hundred percent steel fleet by 1927, the L.I.R.R. has retired all of its wooden parlor cars and began leasing an array of club, buffet, and lounge cars, even an open-end observation car.

A century ago, the railroad handled not only practically all travelers to the villages it served, but virtually all freight, mail, express, livestock, and other transportation.

Today, the Long Island Railroad carries an average of 260,000 passengers daily. Seventy-five percent of which are commuters traveling during rush hour. One of every five rail commuters in the entire nation ride on the L.I.R.R.

Many exciting and visionary schemes have been proposed, for the L.I.R.R., some materializing, others failing. Among them was the nineteenth century idea of L.I.R.R. President, Austin Corbin to build an international deepwater port at Ford Pond Bay in Montauk.

"For over a century, when the growth of Long Island was determined by the railroad, that growth was orderly and manageable, even after the opening of the Pennsylvania Station in Mid-Manhatten and the direct access to Long Island via the East River tunnels in 1910. Now that road transport dominates, 'the blessed isle', as Long Islanders proudly referred to their home long ago, has been overcome by cheap tract housing, clogged highways, pollution, over-population, and crass ugliness over too much of its length."[14]

The romance of the L.I.R.R. that so captivated the imagination of generations past has also largely disappeared. Most of the quaint Victorian depot buildings were demolished in the early to mid-1900's, some to be replaced by drab, utilitarian metal sheds, others to be abandoned, leaving no trace of the fact that trains once stopped there to bring people to new homes or vacation playgrounds, or to carry them off to daily jobs.

Today's L.I.R.R. presents an image of high-technology efficiency, with shiny stainless-steel multiple-unit commuter electric trains and growling diesels. The line has 352 miles

14. Ziel, Ron The Long Island Railroad in Early Photographs. (Dover Publications, New York, 1990)

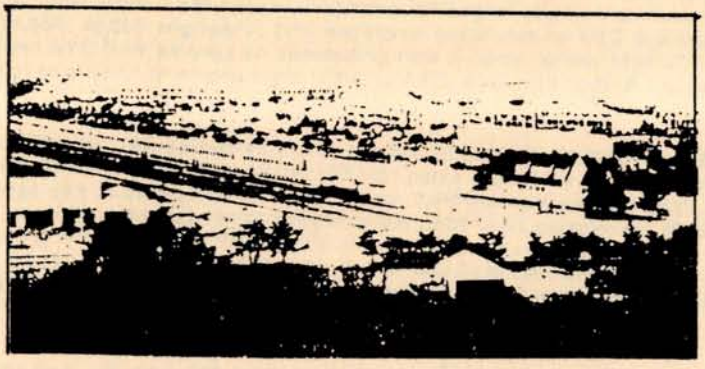
of track, with the longest single run being from Manhatten to Montauk, a distance of 117 miles. It has unfortunately been stripped of personality and soul.

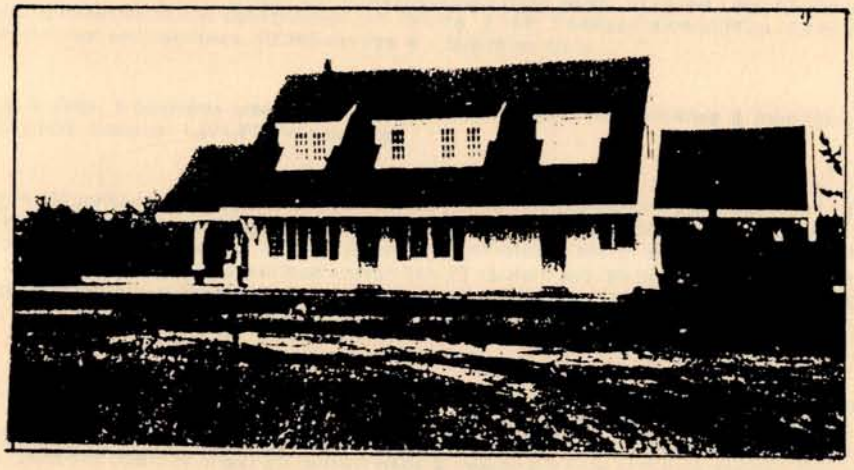
"As the L.I.R.R. continues on into the second half of its second century, it will probably enjoy a resurgence; in recent years the tracks have been completely rebuilt out east. Annual passenger totals are rising and the Metropolitan Transportation Authority is investing millions of dollars to encourage freight business. Certainly, the L.I.R.R. faces a promising future out of sheer necessity, with the general public now in open revolt against the abuses perpetrated by the highway-industrial complex."[15]

15. Ziel, Ron <u>The Long Island Railroad in Early Photographs</u>. (Dover Publications, New York, 1990)

M O N T A U K R A I L R O A D S T A T I O N

The Montauk Railroad Station was built in 1927. The two-story, Tudor Revival style building was built by Carl Fisher. The station has a steeply pitched gable roof with shed-roof dormers. The gabled canopies extending from each end of the station and the recessed entrance porch are supported by posts and braces. The station originally had a stucco exterior and dark trim. The stucco as well as the posts and braces have been covered with white vinyl siding. Green vinyl shutters and white trim complete the recent "Colonial" remodeling of the station.





E X I S T I N G S T A T I O N

LI FACTS IN BRIEF *Nassau & Suffolk Counties* 1/85 Source: *Long Island* **BUSINESS** Research Bureau

GEOGRAPHY: Sq Mi: 1170; Acres: 749,146; Length: 100 miles; Width: 12 to 16 miles; Shoreline: 1180 linear miles; Rainfall: 42 inches; Avg Temp: winter 33°, summer 72°; Avg Relative Humidity: 70%; Avg Wind: 9MPH; Avg Annl Snowfall: 30 inches
814 GOV'T ENTITIES: 2 counties, 13 towns, 2 cities, 93 villages, 704 special districts (666 taxing entities)

DEMOGRAPHICS: Population (Surpasses 21 States): 1984 LILCO est 2,610,854; N 1,304,295; S 1,306,559 (1980 Census: 2,605,813; N 1,321,582; S 2,184,231; 1970; 2,555,868; N 1,428,838; S 1,127,030) Median age: 31.9; density/sq mi 2,137: N 4,348: S 1,417 Households: 809,120; Housing Units: 865,767; Avg Household Size; 3.16; N 3.08; S 3.16; Median Household Income: $38,427 (highest of nation's 315 metro mkts); Total Income: $35,288,254,000; 4% "poor" vs 10% US; 38 hospitals with 20,041 beds employing 52,708 with 345,000 admissions/yr & $777M combined budget.

EDUCATION: 130 school districts: 446,717 students; 34,439 faculty; 75% HS grads vs 66% US; 20 colleges: 125,472 students; 4,566 f/t faculty; $500M combined budget; 20% college grads vs 16% US

ECONOMIC INDICATORS *11 84: Civilian Labor Force: 1,448,200; Emp: 1,377,400* — 18.2% prof & tech, 67% white collar (758,000) vs 50% US; Total Local Jobs; *1,030,700*-1% of LI firms (89 largest employers) make up 22% (224,594) of Total LI Jobs; Licensed prof'ls: 75,650; 40,000 engineers; 24% workforce commutes to NYC & brings back 32% of LI personal income; 14% lower pay than NYC from savings on commuting time & costs; prices rose 37% 1974-79 while income rose 47% less than .3% time lost to strikes; *Unemployment 11/84: LI 4.9%; NYC 7.9%; NYS 6.7%; US 7.2%*

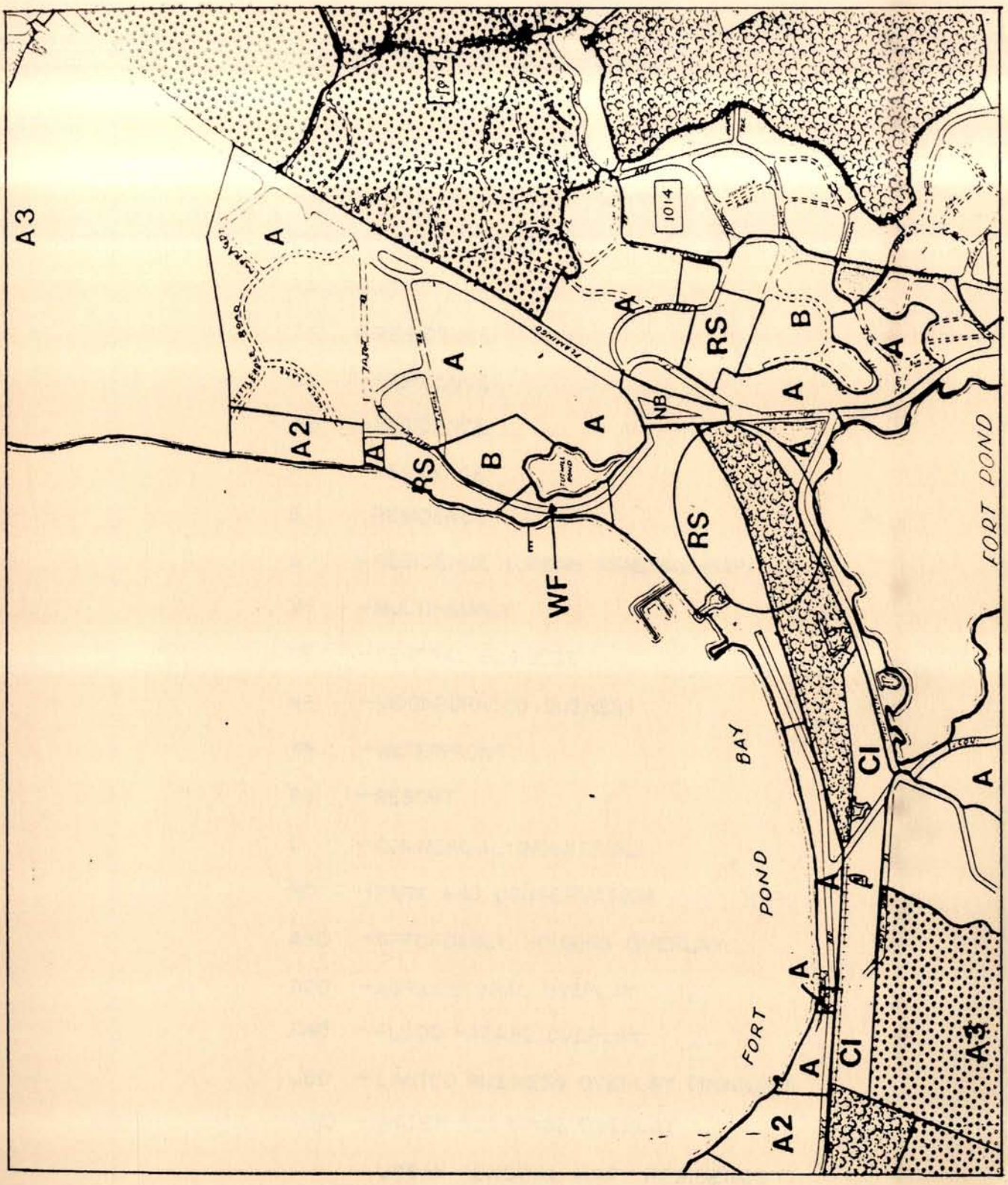
REAL ESTATE: Zoned acreage: 237,182 residential, 21,262 comm'l, 15,304 ind'l, 53,260 transp & utility, 42,147 institutional, 158,670 recreational, 61,468 agriculture, 199,883 vacant; 133 ind'l parks with 49.7M sq ft; 4.0M under constr, 25.5M planned; 531 multi-tenant office bldgs with 34.3M sq ft; 2.4M under constr, 7.9M planned; avg $18-26 sq ft prime ofc space with 92% occupancy rate; 865,767 dwelling units incl 15,244 condominium units in 97 complexes; 32,222 homes sold in 1983 total $2,952,618,770; 5585 housing starts in 1983. Prices 24% lower than comparable areas; LI Avg home selling price 1983: $92,900 incl Hempstead $96,500; N Hempstead $179,500; Oyster Bay $140,500; Smithtown $97,000; Huntington $125,700, Babylon $66,000; Islip $66,700; Brookhaven $63,800; 33 convention ctrs & 8 reg'l indoor shopping malls incl world's 2nd lgst (Roosevelt Field 2,264,000 sq ft); 22 dept store chains with 69 stores over 75,000 sq ft

MARKET DATA: 1292 firms over 100 emp; 200 firms over 500 emp; 89 firms over 1000 emp; 268 public owned firms; 760 tech firms (247 over 100 emp); $3 9B defense contracts 1983; 85 banks (29 Comm'l, 24 S&L's, 32 Savings) with 903 branches & 22,304 emp; 93 overseas owned companies: 28 Japan; 16 United Kingdom; 16 Germany; 7 Netherlands; 11 other nations; $1.6B foreign trade; ⅓ of US buying power within overnight truck delivery; Rankings among USA 323 SMSA's: 9th population; 9th # households; 9th total income; 1st income per household; 9th retail sales; 22nd ind'l mkt 62,726 total firms incl 4,534 mfrs, 1,161 agricultural/fisheries, 5,134 construction, 41 mining, 2,118; transportation/utilities, 6,494 wholesalers, 16,035 retailers, 5,530 financial/real est/insurance, 20,080 service & 1,599 misc firms

COMMUNICATIONS: 1 daily; 1 business weekly; 122 community weeklies; 20 biweeklies & monthlies; 22 magazines; 10 cable TV, 3 TV, & 29 radio stations; 1,271,817 telephones

TRANSPORTATION: 1.8M vehicles: 1.5M cars; 117,000 trucks; 647,500 vehicles crossing N/Q daily; 463,750 vehicles crossing N/S daily; 432 buses carrying 34M passengers/yr on 110 rtes; LIRR: 1000 cars; 850 trains daily; 139 stations; 325 miles track (113 mi electrified); 73M passengers/yr, 18,141 carloads freight totaling 990,215M tons/yr, 5 public airports with 785,701 movements/yr & 1,265 based aircraft; LI MacArthur Airport has 13 carriers with 98 flights daily to 30 cities; Republic Airport has almost 500 based corporate aircraft & 2 carriers with 10 flights daily; 130,000 jobs at JFK & LAG Airports; 279,011 commuters to NYC daily; 203,073 from N; 75,938 from S

PLEASURE ISLAND: $4.8B tourism industry from 20M annual visitors; 300 hotels/motels with 12,000 rms; 113 golf courses; 95 tennis clubs; 22 racquetball clubs; 797 (86 major & 711 minor) parks with 66,000 acres; 2 racetracks; 3 auto speedways; 79,505 motor boats; 70 world fishing records (30 set since 1980); 169 charter boats in 25 ports; 429 yacht clubs & marinas; over 200 museums, galleries, historic sites; 23 concert halls & theaters; home of 4-time Stanley Cup hockey Islanders, & NY Jets football training camp


A3
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A2
RS
B
WF
NB
1014
1015
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CI
A
A
A
CI
A3
A2
FORT POND
BAY
POND
FORT

ZONING MAP

LEGEND

SCHOOL DISTRICT BOUNDARIES

TOWN BOUNDARY LINE

TOWN - VILLAGE BOUNDARY LINE

BOUNDARY LINE BETWEEN DISTRICTS

UNDEVELOPED ROADS

RAILROAD

A5 - RESIDENCE

A3 - RESIDENCE

A2 - RESIDENCE

A - RESIDENCE

B - RESIDENCE

B - RESIDENCE (URBAN RENEWAL MAP)

MF - MULTI-FAMILY

CB - CENTRAL BUSINESS

NB - NEIGHBORHOOD BUSINESS

WF - WATERFRONT

RS - RESORT

CI - COMMERCIAL-INDUSTRIAL

PC - PARK AND CONSERVATION

AHO - AFFORDABLE HOUSING OVERLAY

AGO - AGRICULTURAL OVERLAY

FHO - FLOOD HAZARD OVERLAY

LBO - LIMITED BUSINESS OVERLAY (frontage li

WRO - WATER RECHARGE OVERLAY

URBAN RENEWAL MAP - RESIDENCE (

L E G E N D

§ 153-1-100. Applicability of Article.

The provisions and regulations set forth in this Article shall apply to all lands in all districts unless otherwise limited by specific language therein to the contrary.

ARTICLE II
Use Districts

§ 153-2-10. Use districts established.

For the purposes of this chapter, the Town of East Hampton, exclusive of the Incorporated Villages of Sag Harbor and of East Hampton therein, is hereby divided into the following land use districts:

A. Special districts:

Park and Conservation (PC)

B. Residence districts:

(1) Single-family residence districts:

Residence District A5 (A5)
Residence District A3 (A3)
Residence District A2 (A2)
Residence District A (A)
Residence District B (B)

(2) Other residence districts:

Multifamily District (MF)

C. Commercial districts:

Central Business District (CB)
Neighborhood Business District (NB)
Commercial-Industrial District (CI)
Resort District (RS)
Waterfront District (WF)

§ 153-2-20. Use District Map.

There is hereby authorized to be created a Town of East Hampton Use District Map. Said map shall be the official Town Zoning Map

(2) Only in conformance with the provisions of the Dimensional Table for the district in which the property is located on the Use District Map; and

(3) Only in accordance with all other applicable provisions of this chapter and of this Code.

B. The failure of a land use to be listed on a Use Table shall mean that the use is prohibited and unlawful in the use district to which the table applies.

§ 153-2-45. Number of uses.

A. Except in the case of a multiple-business complex or a multiple-industial complex, the number of main or principal uses listed in the Use Table permitted on any one (1) lot shall not exceed the number set forth below:

(1) Any one (1) residential district lot or any one (1) residential property one (1) use.

(2) Any one (1) commercial district or or any one (1) commercial property in any district two (2) uses, except that pursuant to a special permit additional uses on an individual lot may be authorized within a multiple-business complex or a multiple-industrial complex, subject to all conditions set forth herein for the issuance of such permits.

B. Nothing in this section shall be deemed to reduce any required lot area established by this Code for any particular use, activity, building or structure. In satisfying any such statutory lot area requirement(s), no acreage used for any purpose other than that for which the lot area is required shall be counted, and no acreage in any lot shall be credited toward more than one (1) such statutory lot area requirement. [Added 8-16-85 by L.L. No. 8-1985]

§ 153-2-48. Exceptions to certain Dimensional Table requirements.

Notwithstanding any provision hereof to the contrary, the Planning Board may:

matter jurisdiction or authority of local agencies, the specific provision contained herein shall be deemed to have superseded the provision of the Town Law with which it is in conflict, and the provision herein shall control. All provisions of the Town Law not so specifically superseded shall be deemed to be in effect and shall control as if the same had been incorporated herein.

§ 153-1-70. Overcrowding of dwelling units prohibited.

Notwithstanding any other provision of this Code to the contrary, no person shall erect, construct, create or permit to come into being on any property in any district, dwelling units, as the same are defined herein, at a density of more than six (6) units per acre of land. In computing the area of any lot to determine compliance with this section, the definition of lot area contained in § 153-1-20 shall be adhered to. Further, with regard to multiple residences (apartments) sought to be created pursuant to Chapter 110 of this Code, compliance with this section shall be determined by comparing the number of residences or apartments proposed with the lot area of that part of the plat on which the units are actually to be sited, excluding all other plat acreage, such as open space, reserved areas, roads, recreational facilities and the like. This section shall not apply to transient motels, conversions of preexisting motels or to affordable housing developments which meet all the requirements of, and are approved pursuant to, all applicable provisions of this chapter.

§ 153-1-80. Light.

In the case of outdoor lighting used to illuminate signs, building facades, lawns, yards, pools, tennis courts, walks, drives, parking areas or for any other purpose, light bulb filaments or other direct sources of such external illumination shall not be visible across property lines, including from streets. Nothing herein shall limit the authority of local agencies to condition approvals which they give on the containment of all light within a site.

§ 153-1-90. Noise.

(Reserved)

and shall show the divisions of the town into the use districts established in § 153-2-10 hereof. Said map is hereby adopted, incorporated herein as Article XII of this chapter and declared to be a part hereof. Said map may consist of one (1) or more sheets and, from time to time, may be amended by the Town Board by local law without the necessity to amend any other provision, part or section of this chapter. The boundaries of all use districts (zones) shall be as depicted on the Use District Map. District boundary lines shown on said map as streets or rights-of-way shall be deemed to coincide with the center lines of same and, when shown as paralleling and adjacent to a street, right-of-way or surface water body, shall be deemed to be two hundred (200) feet distant from and parallel to the property lines fronting on such street or right-of-way or the shoreline of such water body unless specifically dimensioned otherwise.

§ 153-2-30. Use Tables; Dimensional Tables.

There are hereby authorized to be created for each of the classes of use districts established in § 153-2-10 hereof, one (1) Use Table and one (1) Dimensional Table. Said tables shall set forth in matrix form the permitted, special permit and prohibited uses in each individual use district and the dimensional requirements for lots, buildings, structures and uses in each such district, respectively. Said tables are hereby adopted, incorporated herein as § 153-11-10 of this chapter and declared to be a part hereof. Any table may consist of more than one (1) sheet and from time to time may be amended by the Town Board by local law without the necessity to amend any other provision, part or section of this chapter.

§ 153-2-40. Effect of Use District Map, Use Tables and Dimensional Tables.

A. Except for uses described in §§ 153-1-40 through 153-1-49 hereof, every building, structure, lot or land shall be utilized:

(1) Only for uses indicated as not prohibited in the Use Table for the district in which the property is located on the Use District Map;

A. Vary any of the requirements of the Dimensional Table for Residential Districts as a part of its approval of those residential subdivisions reviewed and approved pursuant to Chapter 110 of this Code.

B. Vary certain of the requirements of the Dimensional Table for Commercial Districts pursuant to Article V and VI hereof as part of an approval of a multiple-business complex, multiple-industrial complex or planned industrial park.

(Cont'd on page 15351)

§ 153-2-50. Special district provisions.

§ 153-2-51. Inclusion of properties in Park and Conservation District.

Property shall not be initially designated or included into the Park and Conservation District while it is privately owned, without the written consent of the owner to such inclusion first having been obtained. Lands of the federal, state, county or any local government, or of any subdivision, agency, authority or instrumentality thereof, shall not be subject to this limitation and may be so included by a duly adopted amendment to this chapter at any time such designation or inclusion appears warranted or appropriate. This section shall not be deemed to require the rezoning of any Park and Conservation District property because of a change in the ownership or ownership status thereof subsequent to such designation or inclusion.

§ 153-2-53. Structures in Park and Conservation District.

Only buildings and structures customarily related to the permitted uses, such as clubhouses, tennis courts, pools, bathhouses, administration and maintenance buildings and the like shall be erected in the Park and Conservation District. All such buildings and structures shall require site plan review and architectural and design review.

§ 153-2-60. Residential district provisions.

§ 153-2-66. Inclusion of properties in the Multiple Family District.

No lot, property or site not included in a Multifamily District by this chapter on its original effective date shall thereafter be rezoned to be included in the Multifamily district unless and until such time as an affordable housing development approved and carried out pursuant to Article V hereof and involving multiple residence structures shall have been constructed or created on the lot, property or site in question.

Section 153-11-10
III. Residence Districts — Table of Dimensional Regulations
Town of East Hampton

	A5 Residence	A3 Residence	A2 Residence	A Residence	B Residence	MF Multifamily Residence	Attached Dwelling Units Pursuant to Open Space Subdivision Approval
Lot area							
Minimum (square feet)	200,000	125,000	84,000	40,000	20,000[1]	170,000	n/a
Minimum per dwelling unit (square feet)	n/a	n/a	n/a	n/a	n/a	5,445	n/a
Lot coverage[2]							
Maximum (percent)	7	8	10	15	20	20	As per residence district
Total lot coverage maximum (percent)	30	30	35	40	50	75	75
Lot width							
Minimum at the building line (feet)	250	230	200	160	110		n/a
Height, maximum							
Stories	2½	2½	2½	2½	2½	2½	2½
Maximum height (feet)	25	25	25	25	25	25	25
Gabled roof (feet)	32[3]	32[3]	32[3]	32[3]	30	30	30
Setback							
Yards, principal building, minimum (feet)	70	60	50	40	20	50	As per residence district
Front (corner lots have 2 front yards)							
Each side	40	35	30	20	15	50	As per residence district
Rear	40	35	30	20	15	50	As per residence district
Yards, accessory buildings and structures (except fences and retaining walls) (feet)							
Distance from street	80	70	60	50	30	50	As per residence district
Distance from side and rear lot lines	30	25	20	15	10	20	As per residence district
Distance between multiple-dwelling buildings	n/a	n/a	n/a	n/a	n/a	20	20
Habitable floor area							
Minimum (square feet)	600	600	600	600	600	400	500

NOTES:

[1] Varied minimum lot areas for urban renewal maps are specified pursuant to Local Law No. 2 of 1976 (Urban Renewal Law)

[2] In Water Recharge Overlay Districts, the provisions of § 153-3-60 et seq. shall govern.

[3] Amended 7-1-88 by L.L. No. 4-1988]

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TABLE OF REGULATIONS

Section 153-11-10
IV. Business and Commercial-Industrial Districts — Table of Dimensional Regulations
Town of East Hampton

	CB Central Business	NB Neighborhood Business	WF Waterfront	RS Resort	CI Commercial Industrial
Lot area					
Minimum (square feet)	3,000	10,000	20,000[10]	84,000	40,000
Minimum per business or industry (square feet)	3,000[1]	10,000[1]	40,000[1]	n/a	40,000[2]
Minimum for transient hotel or motel (square feet)	n/a	n/a	n/a	3,630	n/a
Minimum for resort motel or multiple-dwelling unit (square feet)	n/a	n/a	n/a	7,260	n/a
Lot coverage					
Maximum (percent)	50	40	40	15	50[3]
Total lot coverage maximum (percent)	80	70	75	75	75[3]
Lot width					
Minimum at the street and waterfront (feet)	40	70	100	100	100
Height, maximum					
Stories	2	2	2	2	2
Maximum height (feet)	30	30	30	30	35[4]
Gabled roof (feet)	35	35	35[4]	35	35[4]
Setback					
Yards, principal building, minimum (feet)					
Front (corner lots have 2 front yards)	10	25	40	30	50
Each side	10[7]	15[6]	10[8]	15[6]	15[6]
Rear	25	25[6]	25[8]	15[6]	25[6]
Yards, accessory buildings and structures (feet)	[9]	[9]	[9]	[9]	[9]
Habitable floor area					
Minimum (square feet)	See § 153-5-50	See § 153-5-50	n/a	See § 153-5-50	n/a
Maximum (square feet)					

NOTES:

[1] Except pursuant to a special permit for multiple-business-use complex.
[2] Except pursuant to a special permit for planned industrial park.
[3] Except in Water Recharge Overlay District where lot coverage shall be a thirty-percent maximum and total lot coverage shall be a forty-percent maximum, and total clearing (as defined) shall be a fifty-percent maximum.
[4] Except by special permit for boat storage and repair buildings.
[5] Except by special permit for industries requiring interior heights up to fifty (50) feet.
[6] Except for yards bordering a residence district, in which case the figure shown shall be doubled.
[7] If building is not to directly abut a business building on either side.
[8] Except pursuant to special permit for waterfront-related uses which require direct access to the waterfront edge.
[9] Accessory buildings and structures must be located within the building envelopes created by all yard requirements listed for principal buildings unless lesser distances are approved pursuant to site plan review. Such approval shall not be granted by the Planning Board unless the applicant has made written request therefor to the Planning Board and has demonstrated that such lesser setbacks will serve the interests of good planning. [Amended 8-16-85 by L.L. No. 8-1985]
[10] Except for special permit uses which specify a larger lot area as a specific safeguard. (See § 153-5-45.) [Amended 10-16-87 by L.L. No. 15-1987]

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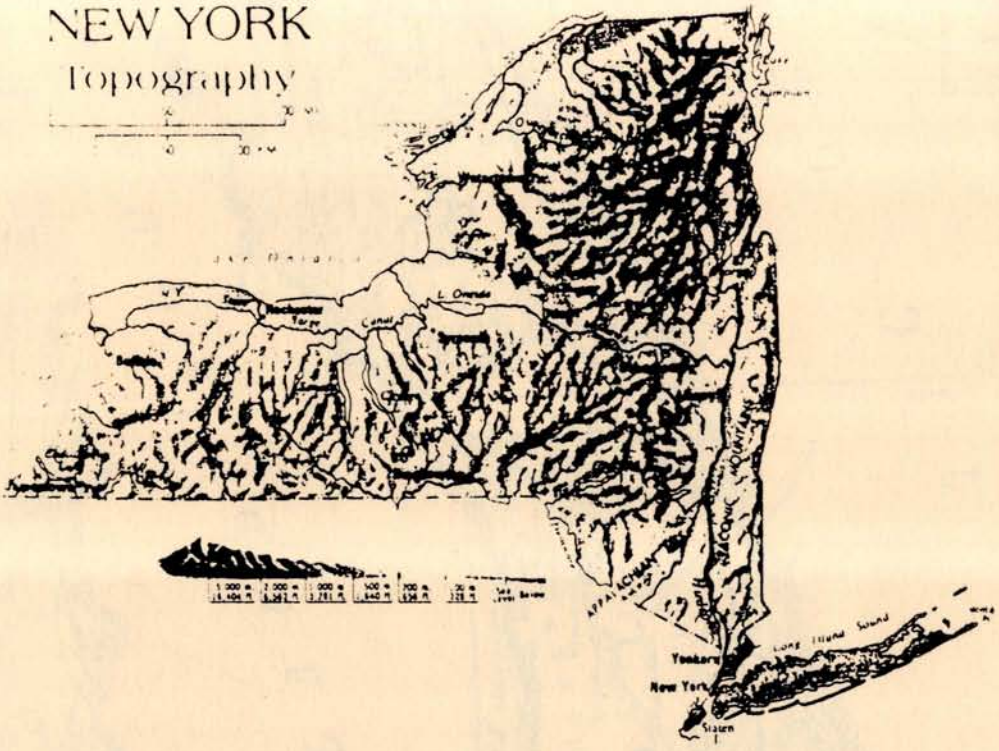
TABLE OF REGULATIONS

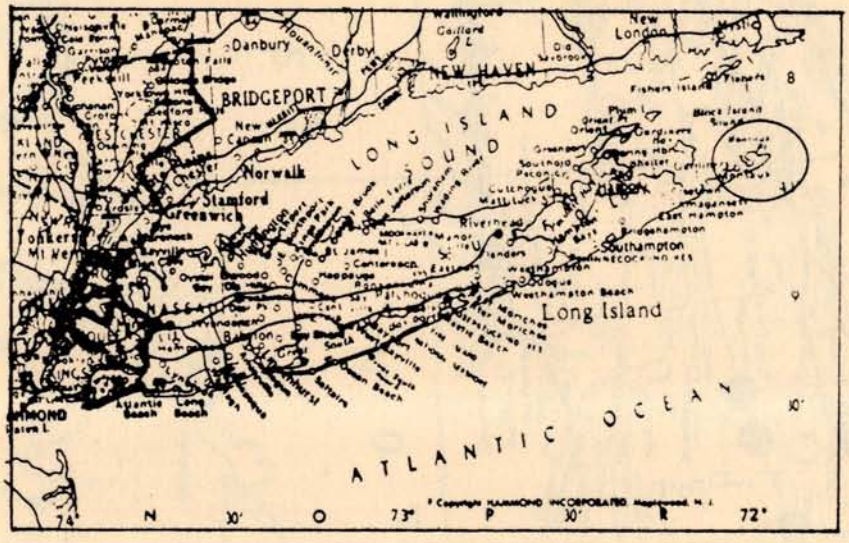
Railroad map of the United States, 1870.

SITE

ANALYSIS

AREA 49,108 sq. mi. (127,190 sq. km.)
POPULATION 17,558,072
CAPITAL Albany
LARGEST CITY New York
HIGHEST POINT Mt. Marcy 5,344 ft. (1629 m.)
SETTLED IN 1614
ADMITTED TO UNION July 26, 1788
POPULAR NAME Empire State
STATE FLOWER Rose
STATE BIRD Bluebird





LOCATOR MAP

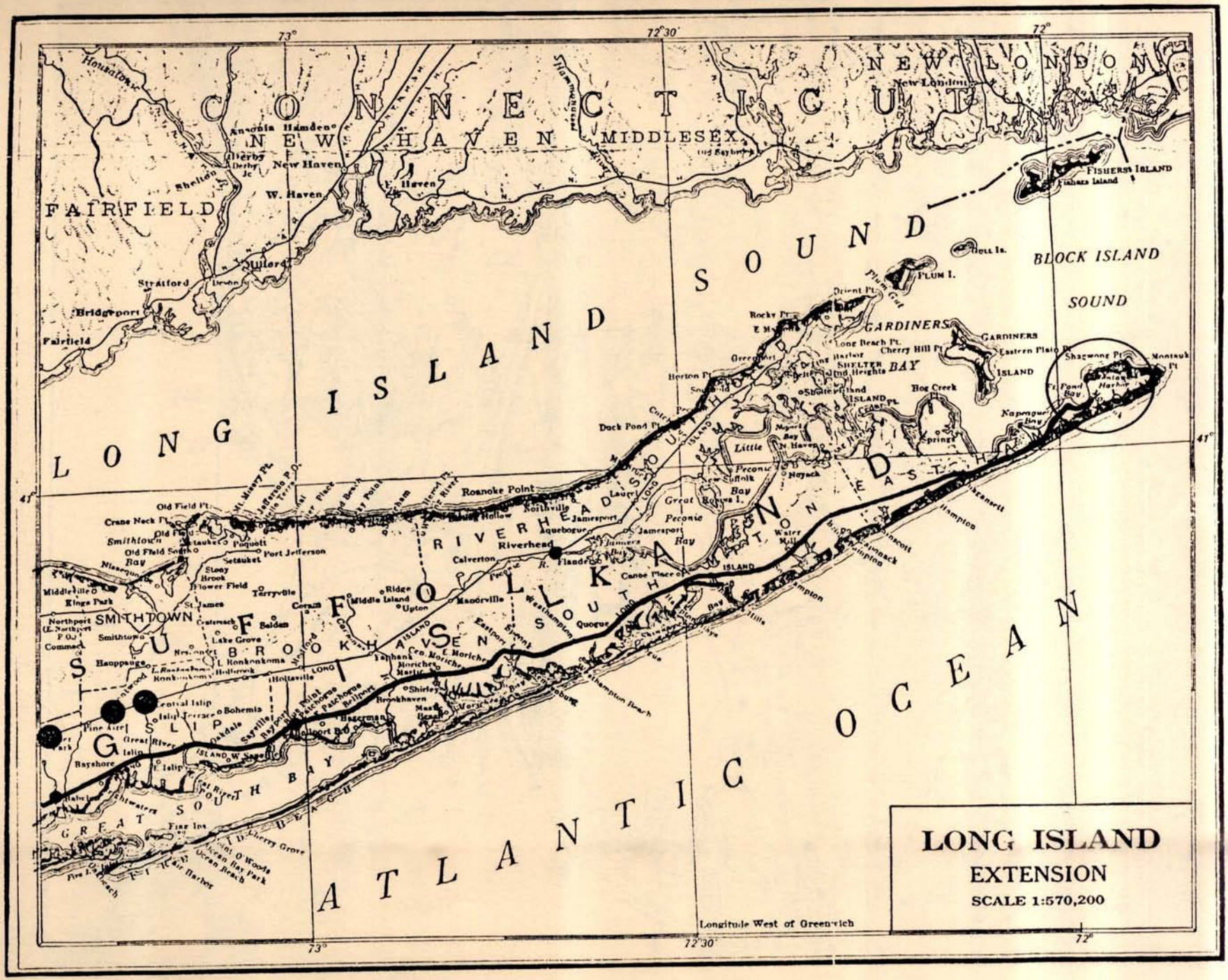
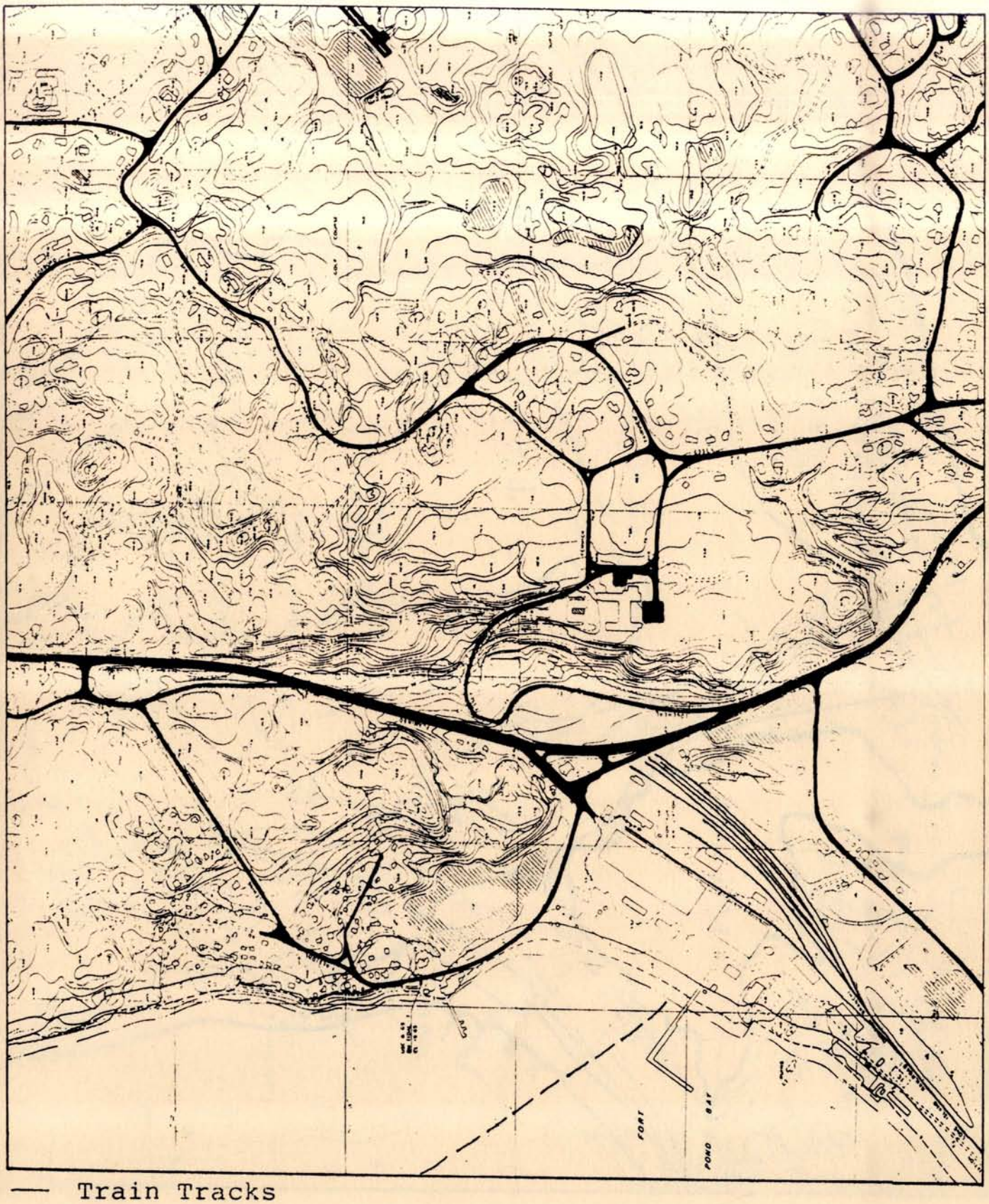

LONG ISLAND
EXTENSION
SCALE 1:570,200
Longitude West of Greenwich
LONG ISLAND SOUND
ATLANTIC OCEAN
CONNECTICUT
NEW LONDON
NEW HAVEN
MIDDLESEX
FAIRFIELD
SUFFOLK
SMITHTOWN
BROOKHAVEN
SOUTHOLD
RIVERHEAD
SOUTHAMPTON
EASTHAMPTON
GARDINERS
BLOCK ISLAND
SOUND
FISHERS ISLAND
PLUM I.
GARDINERS ISLAND
SHELTER ISLAND
GREAT SOUTH BAY
GREAT SOUTH
GREAT SOUTH BAY
SOUTH BAY
GREAT SOUTH BAY
Bridgeport
Fairfield
Stratford
Milford
W. Haven
New Haven
Derby
Ansonia
Hamden
Shelton
Stamford
New London
Fishers Island
Block Island
Plum I.
Gardiners Island
Shelter Island
Riverhead
Southold
Greenport
Orient Pt.
Montauk Pt.
Shagwong Pt.
Eastern Plain
Cherry Hill Pt.
Long Beach Pt.
Rocky Pt.
Duck Pond Pt.
Horton Pt.
Bog Creek
Napeague Harbor
Fresh Pond Bay
Union Harbor
Little Peconic Bay
Great Peconic Bay
Noyack
Jamesport
Aquebogue
Northville
Roanoke Point
Calverton
Flanders
Canoe Place
Water Mill
Bridgehampton
Sagaponack
Wainscott
Amagansett
Hampton
Quogue
Westhampton
Eastport
Moriches
Center Moriches
East Moriches
Brookhaven
Shirley
Mastic
Patchogue
Bellport
Blue Point
Sayville
Oakdale
Bayport
Islip
Central Islip
Bohemia
Great River
Bayshore
Fire Island
Fire Island Beach
Point O'Woods
Ocean Bay Park
Cherry Grove
Fair Harbor
Smithtown
Nissequogue
Kings Park
Commack
Northport
Huntington
Setauket
Port Jefferson
Stony Brook
Flower Field
Terryville
Ridge
Middle Island
Upton
Manorville
Coram
Holtsville
Lake Grove
Smithtown
Hauppauge
Ronkonkoma
Holbrook
Patchogue
Islip
Babylon
Lindenhurst
Amityville
Massapequa
Freeport
Rockville Centre
Hempstead
Jamaica
Flushing
Whitestone
Long Island City
Brooklyn
Queens
Bronx
Manhattan
Staten Island
Jersey City
Newark
Elizabeth
Perth Amboy
Rahway
Linden
Metuchen
Plainfield
Somerville
Bound Brook
Trenton
Princeton
Hightstown
Freehold
Asbury Park
Long Branch
Red Bank
Matawan
Keyport
Middletown
Atlantic Highlands
Sandy Hook
Monmouth Beach
Seabright
Sea Bright
Navesink
Highlands
Locust Point
Shrewsbury
Red Bank
Eatontown
Tinton Falls
Neptune
Asbury Park
Ocean Grove
Belmar
Spring Lake
Point Pleasant
Bay Head
Mantoloking
Brick Town
Lakewood
Toms River
Seaside Park
Seaside Heights
Island Beach
Barnegat Inlet
Barnegat
Barnegat Light
Long Beach Island
Manahawkin
Tuckerton
Little Egg Harbor
Beach Haven
Ship Bottom
Surf City
Harvey Cedars
Long Beach
Stafford
Ocean City
Somers Point
Egg Harbor City
Pleasantville
Atlantic City
Absecon
Margate City
Ventnor City
Longport
Brigantine
Atlantic City
Absecon Inlet
Great Egg Harbor Inlet
Great Egg Harbor Bay
Great Bay
Little Egg Harbor Bay
Barnegat Bay
Manasquan Inlet
Shark River
Belmar
Spring Lake
Point Pleasant
Bay Head
Mantoloking
Brick Town
Lakewood
Toms River
Seaside Park
Seaside Heights
Island Beach
Barnegat Inlet
Barnegat
Barnegat Light
Long Beach Island
Manahawkin
Tuckerton
Little Egg Harbor
Beach Haven
Ship Bottom
Surf City
Harvey Cedars
Long Beach
Stafford
Ocean City
Somers Point
Egg Harbor City
Pleasantville
Atlantic City
Absecon
Margate City
Ventnor City
Longport
Brigantine
Atlantic City
Absecon Inlet
Great Egg Harbor Inlet
Great Egg Harbor Bay
Great Bay
Little Egg Harbor Bay
Barnegat Bay
Manasquan Inlet
Shark River

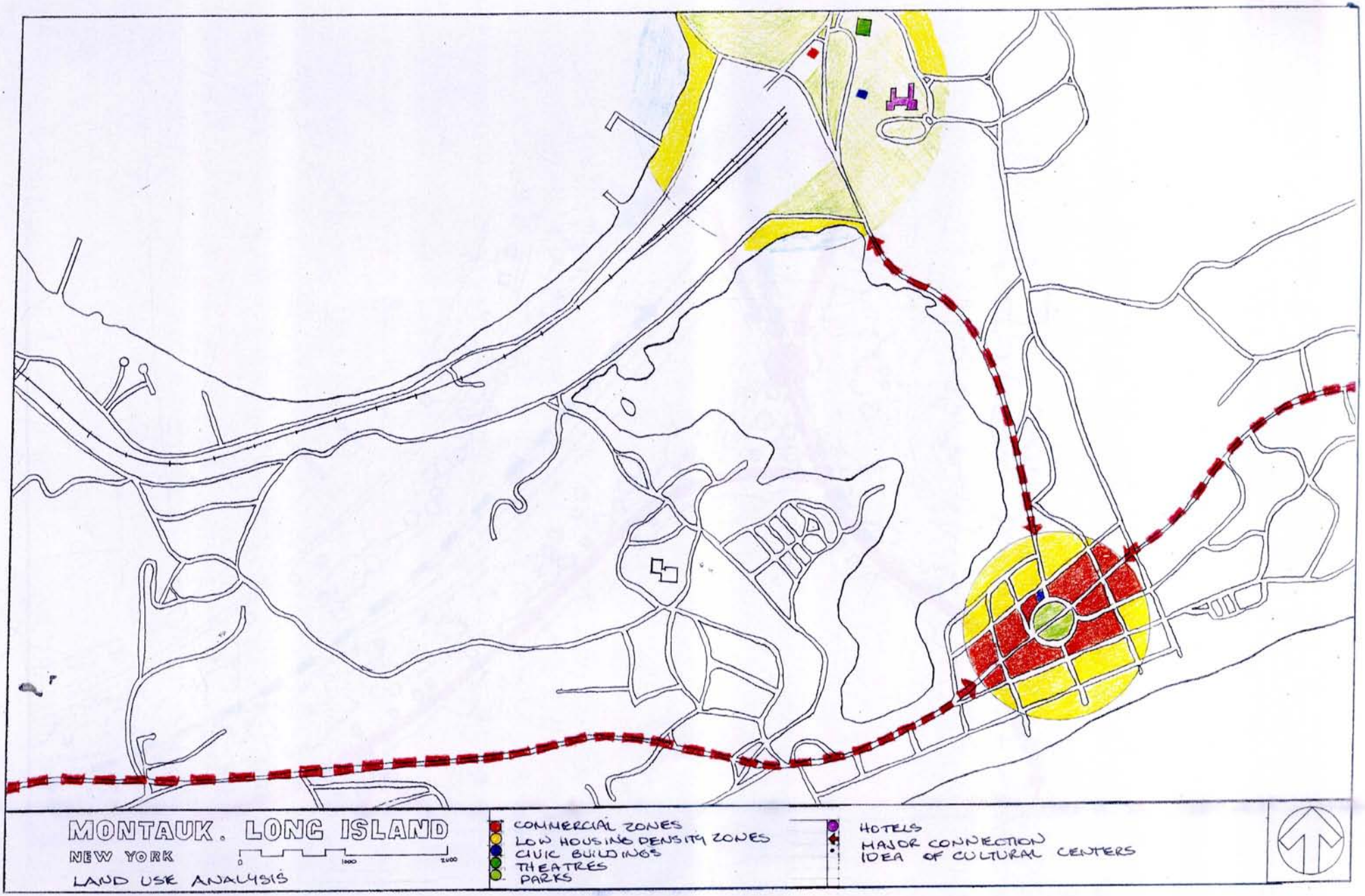
FIGURE GROUND

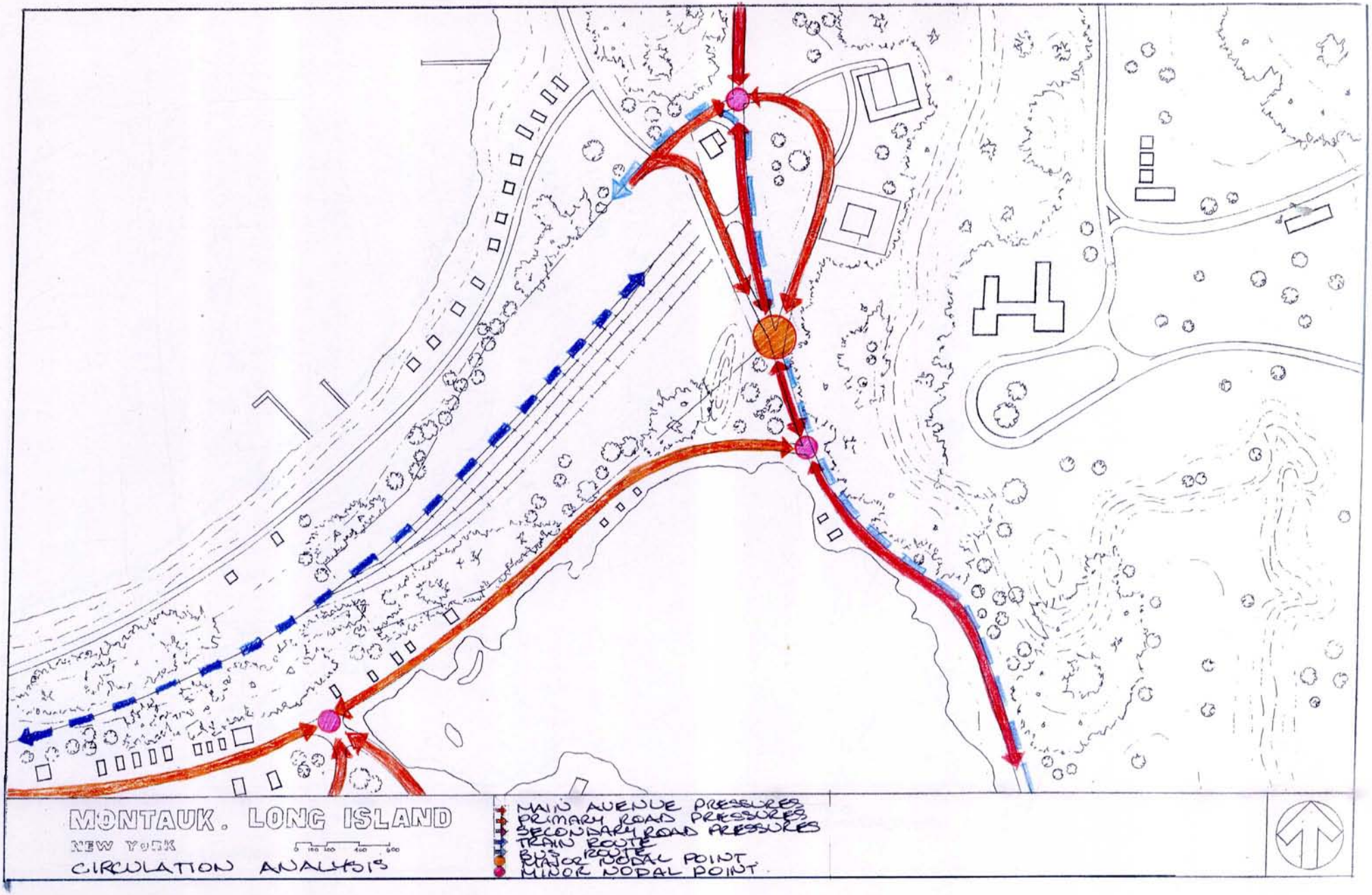


— Train Tracks
---- Ferry Line
▬ Roads

CIRCULATION

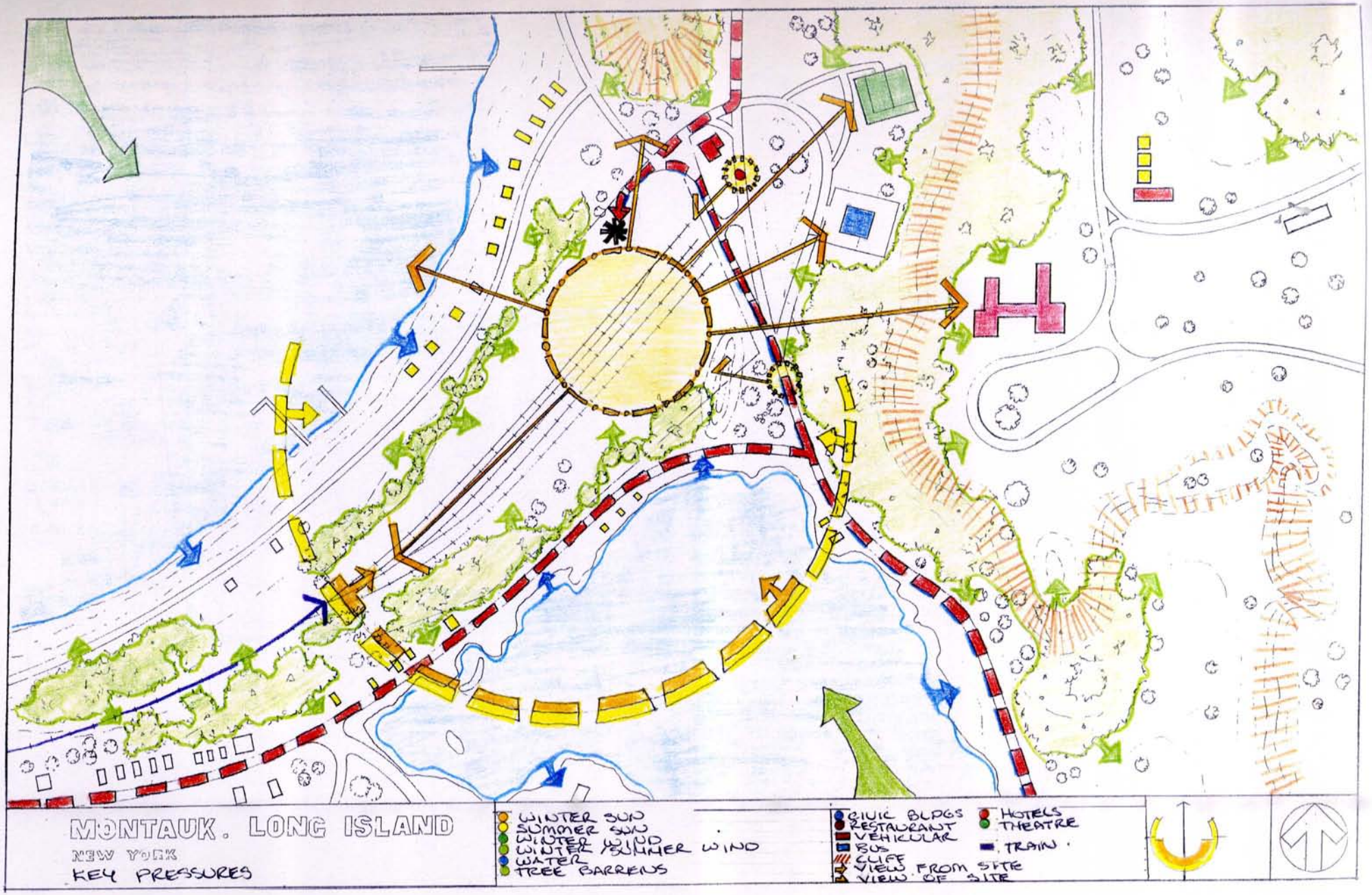
WATER / LAND RELATIONSHIP

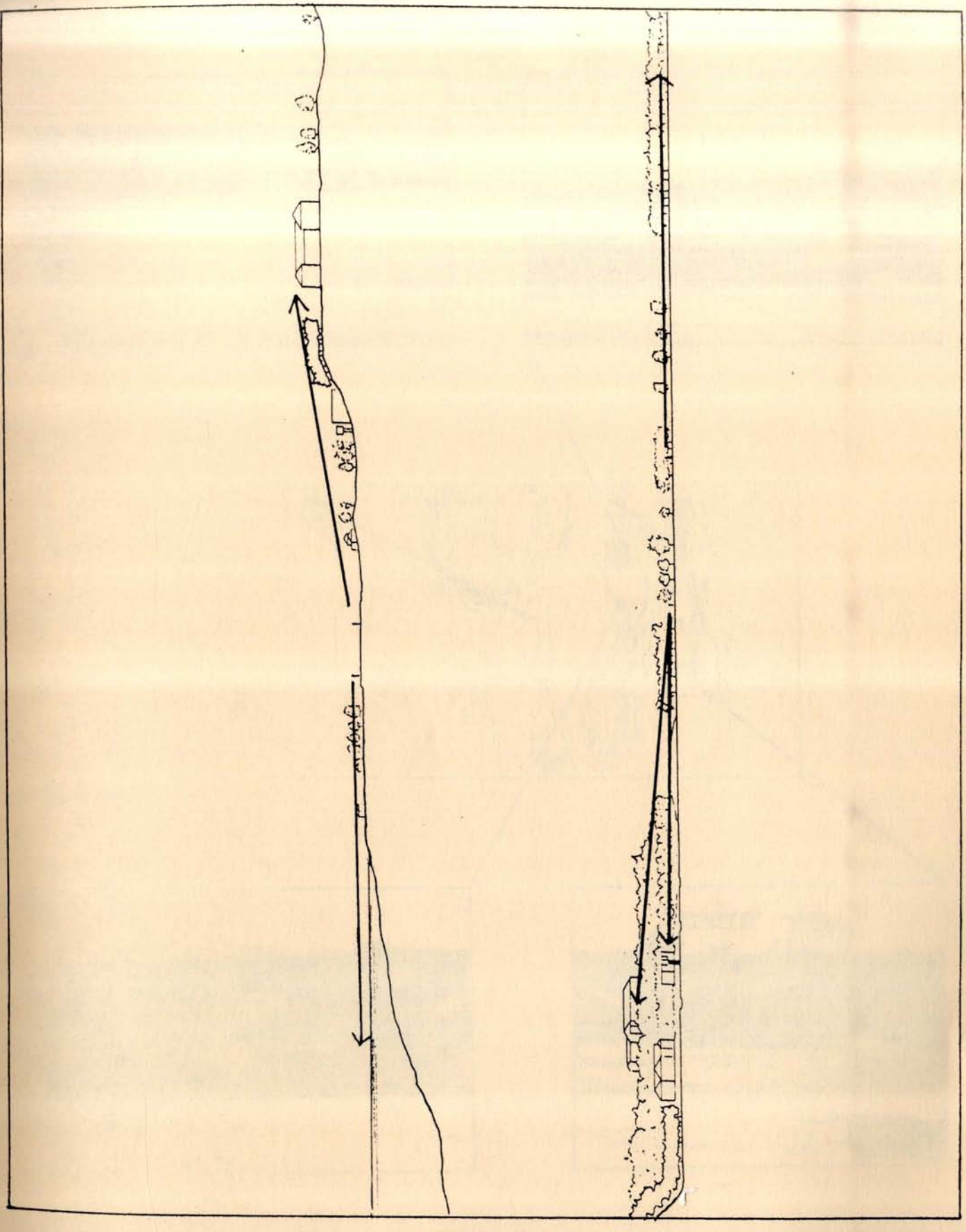

MONTAUK. LONG ISLAND
NEW YORK
0
1000
2000
LAND USE ANALYSIS
COMMERCIAL ZONES
LOW HOUSING DENSITY ZONES
CIVIC BUILDINGS
THEATRES
PARKS
HOTELS
MAJOR CONNECTION
IDEA OF CULTURAL CENTERS


MONTAUK. LONG ISLAND
NEW YORK
CIRCULATION ANALYSIS
0 100 200 400 600
MAIN AVENUE PRESSURES
PRIMARY ROAD PRESSURES
SECONDARY ROAD PRESSURES
TRAIN ROUTE
BUS ROUTE
MAJOR NODAL POINT
MINOR NODAL POINT

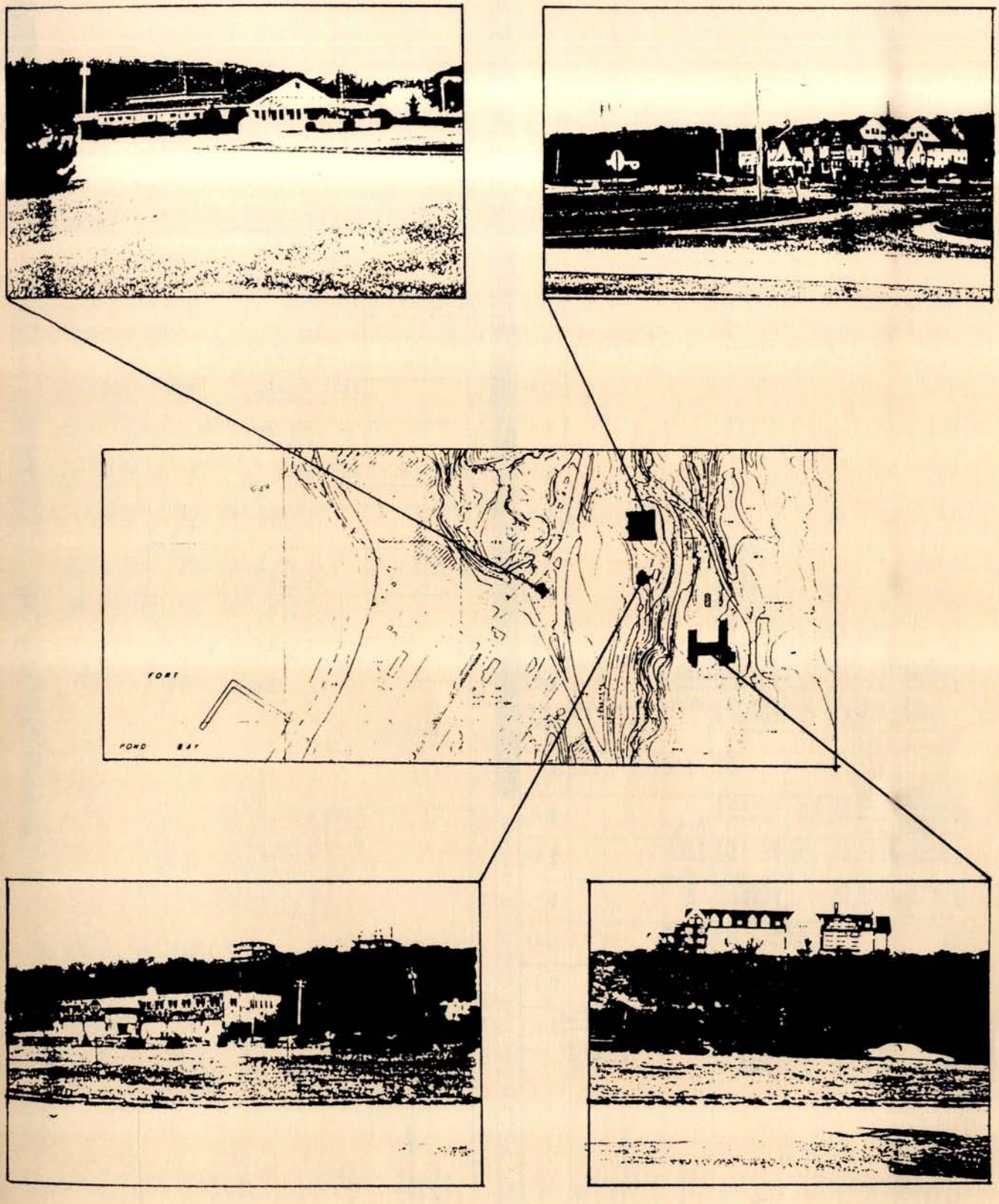

MONTAUK. LONG ISLAND
NEW YORK
SPACE ANALYSIS
0 100 200 400 600
WATER CREATES AN EDGE
TREES ENCLOSE OPEN SPACE
ALL BUILDINGS ARE FREESTANDING
BUILDINGS


MONTAUK. LONG ISLAND
NEW YORK
VIEWS
0 100 200 400 800
VIEWS FROM SITE
OBJECTS VIEWED
GROUND
TREES
STREET
WATER


MONTAUK. LONG ISLAND
NEW YORK
KEY PRESSURES
WINTER SUN
SUMMER SUN
WINTER WIND
WINTER/SUMMER WIND
WATER
TREE BARRENS
CIVIC BLDGS
RESTAURANT
VEHICULAR
BUS
CLIFF
VIEW FROM SITE
VIEW OF SITE
HOTELS
THEATRE
TRAIN



VIEWS FROM SITE



BUILDINGS IN VIEW

Monday – Friday to Montauk Branch Stations

Effective November 18, 1991

ZONE	EASTBOUND		2	92 44	8	98 16	104 48	110 10	116 50	12	126 52	54	136 56	16	140 58	18	60	22	156 24	26	164 28	172 32	34	188 36	EASTBOUND
			AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	
	Penn Station		J 12 39	6 36	J 8 00	J 8 26	9 12	10 31	11 31	J 12 02	1 31	J 2 32	3 22	*J 4 04*	4 08	T 4 20	J 4 41	J 5 10	5 35	J 6 06	6 27	7 31	J 8 31	10 29	Penn Station
	Woodside		J 12 50	6 47	J 8 11	J 8 37	T 9 20	T 10 18	T 11 20	J 12 14	T 1 09	T 2 17	3 33	*T 4 10*	T 4 10	T 4 22	T 4 43	T 5 11		J 6 17	6 38	T 7 33	T 8 17	10 40	Woodside
	Forest Hills		T 12 16	T 6 15	J 8 15	T 8 15	T 9 13	T 10 23	T 11 07		T 1 14	T 2 22	T 3 21	*T 4 02*	T 4 02	T 4 27	T 4 27	T 4 59		T 5 53	T 6 30	T 7 26	T 8 22		Forest Hills
1	Kew Gardens	✈	J 12 55	T 6 17	J 8 17	T 8 17	T 9 15		T 11 09		T 1 16	T 2 24	T 3 09	*T 4 04*	T 4 04	T 4 29	T 4 29	T 5 01		T 6 06	T 6 06	T 7 28	T 8 24		Kew Gardens
	Hunterspoint Ave													*4 08*	T 3 43	4 30	4 44	5 15		T 6 04	T 6 04				Hunterspoint Ave
	Flatbush Ave		J 12 40	J 6 37	J 8 04	8 34	T 9 10	T 10 22	T 11 11	J 12 02	J 1 31	J 2 32	J 3 23	*T 4 00*	T 4 00	T 4 17	T 4 40	J 5 11	C 5 21	J 6 09	J 6 24	T 7 24	J 8 31	J 10 31	Flatbush Ave
	Nostrand Ave		J 12 46	J 6 43	J 8 10	T 8 10	T 9 16	T 10 28	T 11 17	T 11 48	T 1 08	J 2 38	J 3 29	*T 4 06*	T 4 06	T 4 06	T 4 30	J 5 17	C 5 26	T 6 09	J 6 30	T 7 03	T 8 17	T 10 17	Nostrand Ave
	East New York		J 12 51	J 6 48	J 8 15	T 8 39	T 9 21	T 10 33		T 11 54	J 1 41	T 2 32	J 3 34	*T 4 11*	T 4 11	T 4 27	T 4 44	J 5 22	C 5 31	T 5 59	J 6 35	T 7 34	J 8 41	J 10 41	East New York
3	Jamaica Ar		12 59	6 56	8 23	8 51	9 51	10 49	11 49	12 22	1 49	2 50	3 42	*4 23*	4 26	4 45	5 01	5 30		6 26	6 47	7 49	8 49	10 49	Jamaica Ar
	Jamaica Lv	✈	1 03	6 58	8 26	8 52	9 52	10 51	11 51	12 26	1 51	2 53	3 44	*4 25*	4 28	4 50	5 03	5 32		6 30	6 48	7 51	8 51	10 51	Jamaica Lv
4	Mineola (Note)											3 06					5 18								Mineola (Note)
	Babylon Ar			7 50		9 23	10 23	11 23	12 23		2 23		4 23	PARLOR	5 04				6 36		7 23	8 23		11 23	Babylon Ar
9	Babylon Lv (Note)		1 40	C 7 55	3 58	C 9 28	C 10 28	C 11 28	C 12 28		C 2 28	3 33	C 4 28	SERVICE	C 5 09		5 44	6 13	C 6 39		C 7 27	C 8 26	9 26	C 11 28	Babylon Lv (Note)
	Bay Shore		1 47	C 8 02	9 05	C 9 35	C 10 35	C 11 35	C 12 35	1 04	C 2 35	3 40	C 4 35	*Runs*	C 5 17	5 34	5 51	6 20	C 6 46	7 10	C 7 34	C 8 33	9 33	C 11 35	Bay Shore
	Islip		1 52	C 8 06		C 9 39	C 10 39	C 11 39	C 12 39		C 2 39	3 44	C 4 39	*Fridays*	C 5 21		5 56	6 25	C 6 51		C 7 39	C 8 38	9 38	C 11 40	Islip
10	Great River					C 9 43	C 10 43	C 11 43	C 12 43		C 2 43	3 48	C 4 43	*thru*	C 5 25		5 59	6 30	C 6 55		C 7 43	C 8 42	9 42		Great River
	Oakdale		1 58	C 8 12		C 9 47	C 10 47	C 11 47	C 12 47		C 2 47	3 53	C 4 47	*Dec 27*	C 5 29		6 03	6 35	C 6 59		C 7 47	C 8 46	9 46	C 11 47	Oakdale
	Sayville		2 03	C 8 17	9 15	C 9 52	C 10 52	C 11 52	C 12 52	15	C 2 52	3 59	C 4 52	*& Wed*	C 5 35	5 48	6 08	6 41	C 7 05	7 22	C 7 52	C 8 51	9 51	C 11 52	Sayville
11	Patchogue		2 10	C 8 24	9 22	C 9 59	C 10 59	C 11 59	C 12 59	1 22	C 2 59	4 06	C 4 59	*Nov 27*	C 5 42	5 55	6 15	6 48	C 7 12	7 29	C 7 59	C 8 58	9 58	C 11 59	Patchogue
	Bellport		2 18				C 12 06									6 04		6 56			C 8 07	C 9 05		C 12 06	Bellport
	Mastic – Shirley		2 24		9 33		C 12 13			1 36						6 12		7 04	C 7 26	7 43	C 8 15	C 9 12	10 12	C 12 13	Mastic – Shirley
12	Center Moriches		2 32				C 12 20									6 20		7 11			C 8 22	C 9 25		C 12 25	Center Moriches
	Speonk		2 41		9 46		C 12 29			1 55						6 29		7 20		7 59	C 8 32	C 9 35	10 32	C 12 35	Speonk
	Westhampton		2 47		9 56					2 02				*5 39*		6 37				8 07			10 40		Westhampton
	Quogue		2 54		10 04					2 08						6 43							10 46		Quogue
	Hampton Bays		3 01		10 11					2 15						6 51				8 17			10 54		Hampton Bays
	Southampton Campus/L I U		3 09		10 16					2 20						6 58				8 24			11 01		Southampton Campus/L I U
	Southampton		3 15		10 22					2 26				*5 59*		7 04				8 32			11 08		Southampton
14	Bridgehampton		3 22		10 29					2 33				*6 07*		7 12				8 38			11 17		Bridgehampton
	East Hampton		3 31		10 38					2 42				*6 17*		7 22				8 48			11 32		East Hampton
	Amagansett		3 37		10 44											7 29				8 55			11 37		Amagansett
	Montauk		3 57		11 04									*6 38*		7 49				9 15			11 57		Montauk
			AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	*PM*	PM	PM	PM	PM	PM	PM	PM	PM	PM	AM	

Monday – Friday to New York, Brooklyn & Jamaica

ZONE	WESTBOUND		3 83	5 93	7 97	9	11 111	41	13	43	15 123	45 1021	47 135	49 141	19	51 151	21	53 161	23	59 177	25	27 197	29	WESTBOUND
			AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM	PM	
	Montauk		C 12 51						5 38						11 25								10 36	Montauk
	Amagansett		C 1 11						5 58						11 45								10 56	Amagansett
	East Hampton		C 1 17						6 03						11 51			3 15					11 02	East Hampton
	Bridgehampton		C 1 26						6 12						12 00			3 24					11 17	Bridgehampton
14	Southampton		C 1 33						6 19						12 07			3 31					11 25	Southampton
	Southampton Campus/L I U		C 1 39												12 13			3 37					11 31	Southampton Campus/L I U
	Hampton Bays		C 1 47						6 32						12 18			3 50					11 39	Hampton Bays
	Quogue														12 25									Quogue
	Westhampton		C 1 57						6 44						12 31			4 00					11 49	Westhampton
	Speonk		C 2 09	C 4 30	C 5 05		C 6 10		6 51		C 7 27				12 42		2 05	4 11		9 03	C 10 02		11 56	Speonk
12	Center Moriches			C 4 40	C 5 15		C 6 20	To			C 7 37						2 15			9 10				Center Moriches
	Mastic – Shirley		C 2 28	C 4 47	C 5 22	5 44	C 6 27	L.I.	7 05		C 7 44				12 55		2 22	4 25		9 19	C 10 19		12 17	Mastic – Shirley
	Bellport			C 4 54	C 5 29		C 6 34	City			C 7 51						2 29			9 26				Bellport
11	Patchogue		C 2 38	C 4 58	C 5 35	5 55	C 6 39	6 53	7 16	7 35	C 7 56	C 9 30	C 10 30	C 11 30	1 06	C 1 30	2 34	C 3 30	4 35	C 6 29	9 31	C 10 29	12 27	Patchogue
	Sayville		C 2 47	C 5 09	C 5 44	6 04	C 6 49	7 01	7 26	7 43	C 8 06	C 9 38	C 10 38	C 11 38	1 15	C 1 38	2 44	C 3 38	4 45	C 6 37	9 39	C 10 39	12 37	Sayville
	Oakdale		C 2 52	C 5 14		6 09	C 6 54	7 06		7 48	C 8 11	C 9 42	C 10 42	C 11 42		C 1 42	2 48	C 3 42	4 50	C 6 41	9 43	C 10 43	12 41	Oakdale
10	Great River			C 5 19		6 14		7 11		7 53	C 8 16	C 9 46	C 10 46	C 11 46		C 1 46	2 52	C 3 46	4 54	C 6 45				Great River
	Islip		C 2 58	C 5 24		6 19	C 7 04	7 16		7 58	C 8 21	C 9 50	C 10 50	C 11 50		C 1 50	2 56	C 3 50	5 00	C 6 49	9 51	C 10 51	12 49	Islip
	Bay Shore		C 3 03	C 5 30	C 5 58	6 25	C 7 09	7 22		8 03	C 8 26	C 9 55	C 10 55	C 11 55	1 26	C 1 55	3 00	C 3 55	5 05	C 6 54	9 57	C 10 57	12 55	Bay Shore
	Babylon Ar		C 3 10	C 5 37	C 6 05		C 7 15				C 8 33	C 10 01	C 11 01	C 12 01			C 2 01			C 7 01		C 11 03		Babylon Ar
9	Babylon Lv (Note)		3 13	5 41	6 09		7 21	7 30		8 10	8 37	10 06	11 06	12 06	1 32		2 06	3 06	5 13	7 06	10 03	11 09	1 03	Babylon Lv (Note)
4	Mineola (Note)							7 57																Mineola (Note)
	Jamaica Ar		3 48	6 23		7 07	7 59	8 13	8 17	8 51	9 15	10 38	11 36	12 38	2 04	2 36	3 36	4 39	5 50	7 40	10 38	11 58	1 40	Jamaica Ar
3	Jamaica Lv	✈	3 50	6 25		7 09	8 01	8 15	8 19	8 55	9 17	10 39	11 39	12 40	2 07	2 39	3 38	4 41	5 54	7 42	10 47	12 00	1 48	Jamaica Lv
	East New York			T 6 44		T 7 25	T 8 23	J 8 23	J 8 31	T 9 06	J 9 25	T 11 24	T 11 54	T 13	T 2 34	T 3 14	T 3 46	T 5 17	T 6 10	J 7 50	T 10 56	T 12 25	T 1 56	East New York
	Nostrand Ave			T 6 49		T 7 37	T 8 36	T 8 36	J 8 36	T 9 11	J 9 30	T 11 29	T 11 59	T 13	J 2 19	T 3 30	T 4 01	T 5 22	T 6 15	T 8 13	T 11 19	T 12 30	T 2 01	Nostrand Ave
	Flatbush Ave		J 4 06	T 6 54		J 7 27	J 8 20	J 8 52	J 8 41	T 9 16	J 9 35	T 11 23	T 12 04	T 3 09	J 2 24	T 3 23	T 4 09	T 5 13	T 6 20	J 7 59	T 11 05	T 12 23	T 2 06	Flatbush Ave
	Hunterspoint Ave			P		P	P	P	8 36	P														Hunterspoint Ave
1	Kew Gardens	✈				T 7 14	8 05	T 8 47	T 8 47	T 9 13	T 9 38	10 43	T 11 51		T 2 30		T 3 52	4 45	J 5 58	T 8 27	T 10 51		T 2 11	Kew Gardens
	Forest Hills					T 7 16	T 8 25	T 8 25	T 8 49	T 9 15	T 9 40	10 45	T 11 53		T 2 32		T 3 54	4 47	J 6 00	T 8 29	T 10 53		T 2 13	Forest Hills
	Woodside		4 00	6 33		T 7 27	T 8 15	T 8 50	T 8 50	T 9 26	9 26	T 11 09	T 11 58	12 48	J 2 15	2 48	T 3 54	4 53	J 6 06	T 8 09	T 10 56	T 12 16	T 1 57	Woodside
	Penn Station		4 09	6 44	6 57	J 7 28	8 23	T 8 40	J 8 42	J 9 14	9 38	10 59	11 59	12 58	J 2 25	2 58	4 09	5 04	J 6 19	8 00	T 11 08	12 16	T 2 06	Penn Station
			AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM	PM	AM	AM	

L · I · R · R · SCHEDULE

Monday – Friday to Montauk Branch Stations

F

Effective November 18, 1991

ZONE	EASTBOUND		2	92 44	8	98 48	104 48	110 10	116 50	12	126 52	54	136 56	16	140 58	18	60	22	156 24	26	164 28	172 32	34	188 36	EASTBOUND
			AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	
	Penn Station		J 12 39	6 36	J 8 00	J 8 26	9 32	10 31	11 31	J 12 02	1 31	J 2 32	3 22	*J 4 04*	4 08	T 4 20	J 4 41	J 5 10	5 35	J 6 06	6 27	7 31	J 8 31	10 29	Penn Station
	Woodside		J 12 50	6 47	J 8 11	J 8 37	T 9 20	T 10 18	T 11 20	J 12 14	T 1 09	T 2 17	3 33	*T 4 10*	T 4 10	T 4 22	T 4 43	T 5 11		J 6 17	6 38	T 7 33	T 8 17	10 40	Woodside
1	Forest Hills		T 12 16	T 6 15	J 8 15	T 8 15	T 9 13	T 10 23	T 11 07		T 1 14	T 2 22	T 3 21	*T 4 02*	T 4 02	T 4 27	T 4 27	T 4 59		T 5 53	T 6 30	T 7 26	T 8 22		Forest Hills
	Kew Gardens	✈	J 12 55	T 6 17	J 8 17	T 8 17	T 9 15		T 11 09		T 1 16	T 2 24	T 3 09	*T 4 04*	T 4 04	T 4 29	T 4 29	T 5 01		T 6 06	T 6 06	T 7 28	T 8 24		Kew Gardens
	Huntierspoint Ave													*4 08*	T 3 43	4 30	4 44	5 15		T 6 04	T 6 04				Huntierspoint Ave
	Flatbush Ave		J 12 40	J 6 37	J 8 04	8 34	T 9 10	T 10 22	T 11 11	J 12 02	J 1 31	J 2 32	J 3 23	*T 4 00*	T 4 00	T 4 17	T 4 40	J 5 11	C 5 21	J 6 09	J 6 24	T 7 24	J 8 31	J 10 31	Flatbush Ave
	Nostrand Ave		J 12 46	J 6 43	J 8 10	T 8 10	T 9 16	T 10 28	T 11 17	T 11 48	T 1 08	J 2 38	J 3 29	*T 4 06*	T 4 06	T 4 06	T 4 30	J 5 17	C 5 26	T 6 09	J 6 30	T 7 03	T 8 17	T 10 17	Nostrand Ave
	East New York		J 12 51	J 6 48	J 8 15	T 8 39	T 9 21	T 10 33		T 11 54	J 1 41	T 2 32	J 3 34	*T 4 11*	T 4 11	T 4 27	T 4 44	J 5 22	C 5 31	T 5 59	J 6 35	T 7 34	J 8 41	J 10 41	East New York
	Jamaica Ar		12 59	6 56	8 23	8 51	9 51	10 49	11 49	12 22	1 49	2 50	3 42	*4 23*	4 26	4 45	5 01	5 30		6 26	6 47	7 49	8 49	10 49	Jamaica Ar
3	Jamaica Lv		1 03	6 58	8 26	8 52	9 52	10 51	11 51	12 26	1 51	2 53	3 44	*4 25*	4 28	4 50	5 03	5 32		6 30	6 48	7 51	8 51	10 51	Jamaica Lv
4	Mineola (Note)											3 06					5 18								Mineola (Note)
	Babylon Ar			7 50		9 23	10 23	11 23	12 23		2 23		4 23	PARLOR	5 04				6 36		7 23	8 23		11 23	Babylon Ar
9	Babylon Lv (Note)		1 40	C 7 55	8 58	C 9 28	C 10 28	C 11 28	C 12 28		2 28	3 33	C 4 28	SERVICE	C 5 09		5 44	6 13	C 6 39		C 7 27	C 8 26	9 26	C 11 28	Babylon Lv (Note)
	Bay Shore		1 47	C 8 02	9 05	C 9 35	C 10 35	C 11 35	C 12 35	1 04	C 2 35	3 40	C 4 35	*Runs*	C 5 17	5 34	5 51	6 20	C 6 46	7 10	C 7 34	C 8 33	9 33	C 11 35	Bay Shore
	Islip		1 52	C 8 06		C 9 39	C 10 39	C 11 39	C 12 39		C 2 39	3 44	C 4 39	*Fridays*	C 5 21		5 56	6 25	C 6 51		C 7 39	C 8 38	9 38	C 11 40	Islip
10	Great River					C 9 43	C 10 43	C 11 43	C 12 43		C 2 43	3 48	C 4 43	*thru*	C 5 25		5 59	6 30	C 6 55		C 7 43	C 8 42	9 42		Great River
	Oakdale		1 58	C 8 12		C 9 47	C 10 47	C 11 47	C 12 47		C 2 47	3 53	C 4 47	*Dec. 27*	C 5 29		6 03	6 35	C 6 59		C 7 47	C 8 46	9 46	C 11 47	Oakdale
	Sayville		2 03	C 8 17	9 15	C 9 52	C 10 52	C 11 52	C 12 52	1 15	C 2 52	3 59	C 4 52	*& Wed.*	C 5 35	5 48	6 08	6 41	C 7 05	7 22	C 7 52	C 8 51	9 51	C 11 52	Sayville
11	Patchogue		2 10	C 8 24	9 22	C 9 59	C 10 59	C 11 59	C 12 59	1 22	C 2 59	4 06	C 4 59	*Nov. 27*	C 5 42	5 55	6 15	6 48	C 7 12	7 29	C 7 59	C 8 58	9 58	C 11 59	Patchogue
	Bellport		2 18					C 12 06								6 04		6 56			C 8 07	C 9 05		C 12 06	Bellport
	Mastic – Shirley		2 24		9 34			C 12 13		1 36						6 12		7 04	C 7 26	7 43	C 8 15	C 9 12	10 12	C 12 13	Mastic – Shirley
12	Center Moriches		2 32					C 12 20								6 20		7 11			C 8 22	C 9 25		C 12 25	Center Moriches
	Speonk		2 41		9 48			C 12 29		1 55						6 29		7 20		7 59	C 8 32	C 9 35	10 32	C 12 35	Speonk
	Westhampton		2 47		9 56					2 02				*5 39*		6 37				8 07			10 40		Westhampton
	Quogue		2 54		10 04					2 08						6 43							10 46		Quogue
	Hampton Bays		3 01		10 11					2 15						6 51				8 17			10 54		Hampton Bays
	Southampton Campus/L I U		3 09		10 16					2 20						6 58				8 24			11 01		Southampton Campus/L I U
	Southampton		3 15		10 22					2 26				*5 59*		7 04				8 32			11 08		Southampton
14	Bridgehampton		3 22		10 29					2 33				*6 07*		7 12				8 38			11 17		Bridgehampton
	East Hampton		3 31		10 38					2 42				*6 17*		7 22				8 48			11 32		East Hampton
	Amagansett		3 37		10 44											7 29				8 55			11 37		Amagansett
	Montauk		3 57		11 04									*6 38*		7 49				9 15			11 57		Montauk
			AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	AM	

Monday – Friday to New York, Brooklyn & Jamaica

ZONE	WESTBOUND		3 83	5 93	7 97	9	11 111	41	13	43	15 123	45 1021	47 135	49 141	19	51 151	21	53 161	23	59 177	25	27 197	29	WESTBOUND
			AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM	PM	
	Montauk		C 12 51						5 38						11 25								10 36	Montauk
	Amagansett		C 1 11						5 58						11 45								10 56	Amagansett
	East Hampton		C 1 17						6 03						11 51				3 15				11 02	East Hampton
	Bridgehampton		C 1 26						6 12						12 00				3 24				11 17	Bridgehampton
14	Southampton		C 1 33						6 19						12 07				3 31				11 25	Southampton
	Southampton Campus/L I U		C 1 39												12 13				3 37				11 31	Southampton Campus/L I U
	Hampton Bays		C 1 47						6 32						12 18				3 50				11 39	Hampton Bays
	Quogue														12 25									Quogue
	Westhampton		C 1 57						6 44						12 31				4 00				11 49	Westhampton
	Speonk		C 2 09	C 4 30	C 5 05		C 6 10		6 51		C 7 27				12 42		2 05		4 11		9 03	C 10 02	11 56	Speonk
12	Center Moriches			C 4 40	C 5 15		C 6 20	To			C 7 37						2 15				9 10			Center Moriches
	Mastic – Shirley		C 2 28	C 4 47	C 5 22	5 44	C 6 27	L I	7 05		C 7 44				12 55		2 22		4 25		9 19	C 10 19	12 17	Mastic – Shirley
	Bellport			C 4 54	C 5 29		C 6 34	City			C 7 51						2 29				9 26			Bellport
11	Patchogue		C 2 38	C 4 58	C 5 35	5 55	C 6 39	6 53	7 16	7 35	C 7 56	C 9 30	C 10 30	C 11 30	1 06	C 1 30	2 34	C 3 30	4 35	C 6 29	9 31	C 10 29	12 27	Patchogue
	Sayville		C 2 47	C 5 09	C 5 44	6 04	C 6 49	7 01	7 26	7 43	C 8 06	C 9 38	C 10 38	C 11 38	1 15	C 1 38	2 44	C 3 38	4 45	C 6 37	9 39	C 10 39	12 37	Sayville
	Oakdale		C 2 52	C 5 14		6 09	C 6 54	7 06		7 48	C 8 11	C 9 42	C 10 42	C 11 42		C 1 42	2 48	C 3 42	4 50	C 6 41	9 43	C 10 43	12 41	Oakdale
10	Great River			C 5 19		6 14		7 11		7 53	C 8 16	C 9 46	C 10 46	C 11 46		C 1 46	2 52	C 3 46	4 54	C 6 45				Great River
	Islip		C 2 58	C 5 24		6 19	C 7 04	7 16		7 58	C 8 21	C 9 50	C 10 50	C 11 50		C 1 50	2 56	C 3 50	5 00	C 6 49	9 51	C 10 51	12 49	Islip
	Bay Shore		C 3 03	C 5 30	C 5 58	6 25	C 7 09	7 22		8 03	C 8 26	C 9 55	C 10 55	C 11 55	1 26	C 1 55	3 00	C 3 55	5 05	C 6 54	9 57	C 10 57	12 55	Bay Shore
	Babylon Ar		C 3 10	C 5 37	C 6 05		C 7 15				C 8 33	C 10 01	C 11 01	C 12 01		C 2 01		C 4 01		C 7 01		C 11 03		Babylon Ar
9	Babylon Lv (Note)		3 13	5 41	6 09		7 21	7 30		8 10	8 37	10 06	11 06	12 06	1 33	2 06	3 06	4 06	5 13	7 06	10 03	11 09	1 03	Babylon Lv (Note)
4	Mineola (Note)							7 57																Mineola (Note)
	Jamaica Ar		3 48	6 23		7 07	7 59	8 13	8 17	8 51	9 15	10 38	11 36	12 38	2 04	2 38	3 40	4 39	5 50	7 40	10 38	11 58	1 40	Jamaica Ar
3	Jamaica Lv	✈	3 50	6 25		7 09	8 01	8 15	8 19	8 55	9 17	10 39	11 39	12 40	2 07	2 39	3 48	4 41	5 54	7 42	10 47	12 00	1 48	Jamaica Lv
	East New York			T 6 44		T 7 25	T 8 23	J 8 23	J 8 31	T 9 06	J 9 25	T 11 24	T 11 56	T 1 14	T 2 34	T 3 14	T 3 56	T 5 17	T 6 10	T 7 56	T 10 56	T 12 25	T 1 56	East New York
	Nostrand Ave			T 6 49		T 7 37	T 8 36	T 8 36	J 8 36	T 9 11	J 9 30	T 11 29	T 11 59	T 1 19	J 2 39	T 3 19	T 4 01	T 5 22	T 6 15	T 8 13	T 11 19	T 12 30	T 2 01	Nostrand Ave
	Flatbush Ave		J 4 06	T 6 54		J 7 27	J 8 20	J 8 52	J 8 41	T 9 16	J 9 35	T 11 23	T 12 04	T 1 09	J 2 24	T 3 23	T 4 06	T 5 13	T 6 20	J 7 59	T 11 05	T 12 23	T 2 06	Flatbush Ave
	Huntierspoint Ave			P		P	P	P	8 36	P														Huntierspoint Ave
1	Kew Gardens	✈				T 7 14	8 05	T 8 47	T 8 47	T 9 13	T 9 38	10 43	T 11 51		T 2 30		T 3 55	4 45	J 5 58	T 8 27	T 10 51		T 2 11	Kew Gardens
	Forest Hills					T 7 18	T 8 25	T 8 25	T 8 49	T 9 15	T 9 40	10 45	T 11 53		T 2 32		T 3 54	4 47	J 6 00	T 8 29	T 10 53		T 2 13	Forest Hills
	Woodside		4 00	6 33		T 7 27	T 8 15	T 8 50	T 8 50	T 9 26	9 26	T 11 09	T 11 58	12 48	J 2 15	2 48	T 3 59	4 53	J 6 06	T 8 09	T 10 58	T 12 16	T 1 57	Woodside
	Penn Station		4 09	6 44	6 57	J 7 28	8 23	T 8 40	J 8 42	J 9 14	9 38	10 59	11 59	12 58	J 2 25	2 58	T 4 09	5 04	J 6 19	8 00	T 11 08	12 16	T 2 06	Penn Station
			AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM	PM	AM	AM	

CONCLUSIONS

G O A L S / I S S U E S

To find the balance of prototype and type, and to find out to what extent the prototype is adaptable to different sites.

To determine whether the prototype should be expressed or concealed within the type.

To re-interpret elements of traditional precedents and adapt them for use in modern day society.

To explore to what extent the transformation of the existing typology of the train station is necessary.

To create a building which is appropriate for current needs, remembers the past, and is flexible enough to grow with technological advances.

To develop a building and program that redefines the role of the train station in a community in the 21st century.

To promote mass transportation over vehicular transportation due to the on-going energy crisis, deteriorating environment, and the growing congestion of suburbia.

To convey the depot as an essential part of the railway system of transportation and have it reflect the impact of technology, and mobility of the masses.

To work with several scales; train, automobile, and pedestrian, and learn to combine and unify them in one building or complex, creating an interesting and exciting space.

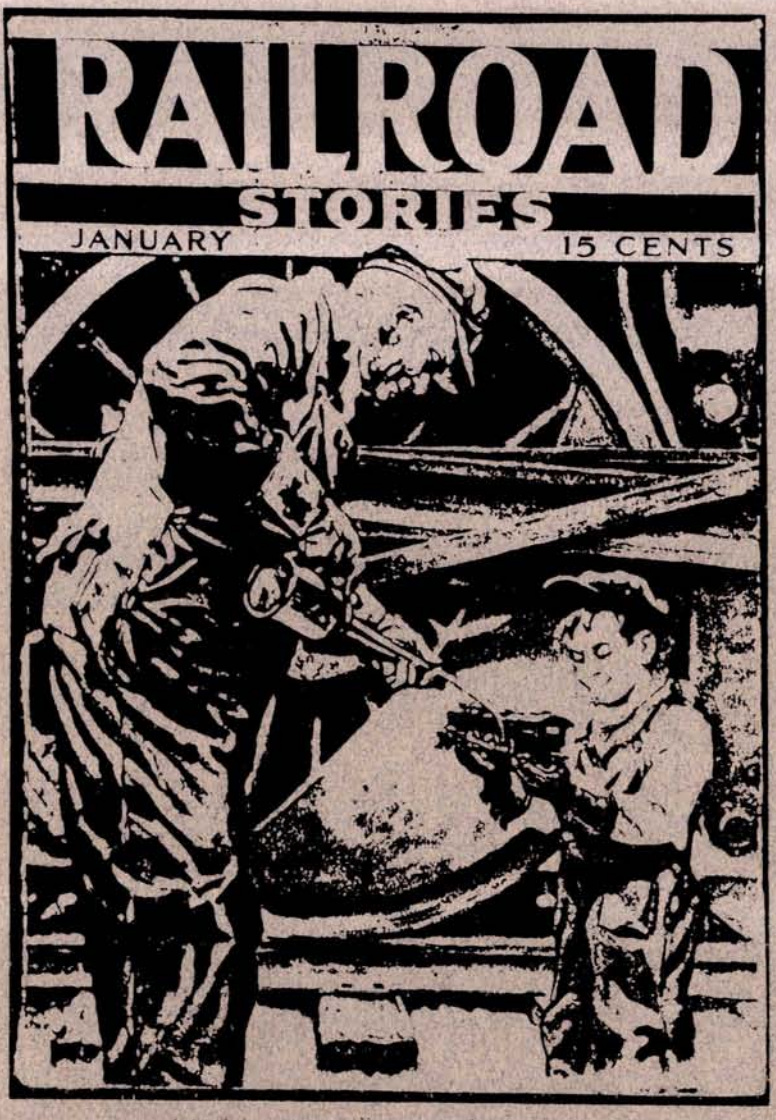
To deal with the transition from a large scale city to a small suburban town, the cahnge in scale, pace and social issues.

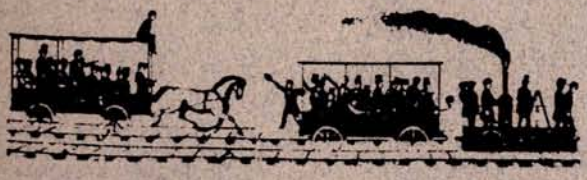
To learn the process behind Architectural design and develop a clearer understanding of its principles.

E X P E C T A T I O N S

The thesis will analyze the train station as a typology, develop conceptual strategies for a prototype, and demonstrate the advantages of the prototype and how it can be used as a building block for specific site considerations.

Analytical studies of the programmatic functions of the railroad station are essential for the formation of a prototype. Diagrams of the prototype, in its utopian form, will be necessary before it can be adapted to a specific site. Plans, sections, and models will demonstrate the final proof of the adapted prototype fitting in and enhancing its site.





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